COMMUNITY PHARMACY SURVEY ON PATIENT SAFETY CULTURE

Surveys on Patient Safety Culture™

2015 USER COMPARATIVE DATABASE REPORT

AHRQ
Agency for Healthcare Research and Quality

PATIENT SAFETY

Community Pharmacy Survey on Patient Safety Culture: 2015 User Comparative Database Report

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Executive Summary

The *Community Pharmacy Survey on Patient Safety Culture* is an expansion of AHRQ's *Hospital Survey on Patient Safety Culture* to the community pharmacy setting. The community pharmacy survey is designed to measure the culture of patient safety in community pharmacies from the perspective of pharmacists and staff. The *Community Pharmacy Survey on Patient Safety Culture 2015 User Comparative Database Report* consists of data from 255 community pharmacies and 1,603 pharmacy staff respondents who completed the survey between November 2013 and November 2014.

This comparative database report was developed as a tool for the following purposes:

- ***Comparison***—To allow community pharmacies to compare their patient safety culture survey results with other community pharmacies.
- ***Assessment and Learning***—To provide data to community pharmacies to facilitate internal assessment and learning in the patient safety improvement process.
- ***Supplemental Information***—To provide supplemental information to help community pharmacies identify their strengths and areas with potential for improvement in patient safety culture.

It is important to note the following limitations of this report:

- Only 255 community pharmacies voluntarily submitted data to the database for the 2015 report, which represents less than 1 percent of the total number of community pharmacies in the United States.
- Among community pharmacies that submitted data, only 3 percent are independent, while nationally 34 percent of community pharmacies are independent.

An additional consideration when reading this report is that the average percent positive scores on the survey's composites are much higher for community pharmacies participating in the 2015 database compared with patient safety culture results presented in similar comparative database reports for hospitals, medical offices, and nursing homes.

Survey Content

The community pharmacy survey includes 36 items that measure 11 composites of organizational culture pertaining to patient safety:

1. Communication About Mistakes
2. Communication About Prescriptions Across Shifts
3. Communication Openness
4. Organizational Learning—Continuous Improvement
5. Overall Perceptions of Patient Safety
6. Patient Counseling
7. Physical Space and Environment
8. Response to Mistakes
9. Staff Training and Skills

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10. Staffing, Work Pressure, and Pace
11. Teamwork

The survey also includes three items about the frequency of documenting different types of mistakes. In addition, respondents are asked to provide an overall rating on patient safety. Respondents are also asked to provide limited background demographic information.

Survey Administration Statistics

- A total of 255 community pharmacies submitted data for the 2015 report.
- The average community pharmacy response rate was 64 percent, with an average of 6 completed surveys per pharmacy.

Characteristics of Participating Community Pharmacies

- More than half of the database community pharmacies (53 percent) were chain drugstores or integrated health system pharmacies.
- The largest percentage of the database community pharmacies reported an average of 701 to 1,500 prescriptions filled per week (42 percent).
- The West Central region had the largest percentage of database pharmacies (44 percent).

Characteristics of Respondents

- There were 1,603 community pharmacy respondents.
- The two most frequent staff positions of respondents were:

  o Pharmacy technician (42 percent)
  o Pharmacist (35 percent)

- More than one-fourth of respondents (28 percent) had worked in their pharmacy for 1 year to less than 3 years.
- Most respondents (63 percent) worked 32 to 40 hours per week.

Areas of Strength for Most Community Pharmacies

The areas of strength or composites with the highest average percent positive responses were[i]:

1. *Patient Counseling (average 95 percent positive)*—the extent to which patients are encouraged to talk to the pharmacist; pharmacists spend enough time talking to patients and tell them important information about new prescriptions.
2. *Communication Openness (average 87 percent positive)*—the extent to which staff freely speak up about patient safety concerns, staff feel comfortable asking questions, and staff suggestions are valued.

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[i] Percent positive is the percentage of positive responses (e.g., Agree, Strongly agree) to positively worded items (e.g., "Staff are treated fairly when they make mistakes") or negative responses (e.g., Disagree, Strongly disagree) to negatively worded items (e.g., "Staff feel like their mistakes are held against them").

Area With Potential for Improvement for Most Community Pharmacies

1. ***Staffing, Work Pressure, and Pace (average 44 percent positive)***—the extent to which there are enough staff to handle the workload, staff do not feel rushed, staff can take breaks, and work can be completed accurately despite distractions.

Results by Community Pharmacy Characteristics

Average Number of Prescriptions Filled per Week

- Community pharmacies with an average of *700 or fewer* prescriptions filled per week had the highest average percent positive on all 11 patient safety culture composites.
- The highest percentage of respondents who gave their pharmacy an Overall Rating on Patient Safety of "Excellent" or "Very good" came from community pharmacies with an average of *700 or fewer* prescriptions filled per week (90 percent); community pharmacies with *1,501 or more* had the lowest (85 percent).

Geographic Region

- Overall, community pharmacies did not have large differences across geographic regions on the 11 patient safety culture composites.
- Community pharmacies from the *New England/Mid-Atlantic/South Atlantic* and *Mountain/Pacific* region had the highest percentage of respondents who gave their pharmacy an Overall Rating on Patient Safety of "Excellent" or "Very good" (89 percent); community pharmacies from the *West Central* region had the lowest (81 percent).

Results by Respondent Characteristics

Staff Position

- *Pharmacists* had the highest average percent positive response across the composites (83 percent); *Pharmacy technicians* and *pharmacy student interns/externs* had the lowest (76 percent each).
- *Pharmacy clerks/cashiers* had the highest percentage of respondents who gave their pharmacy an Overall Rating on Patient Safety of "Excellent" or "Very good" (92 percent); *Pharmacy student interns/externs* had the lowest (80 percent).

Action Planning for Improvement

The delivery of survey results is *not the end point* in the survey process; it is just the *beginning*. Often, the perceived failure of surveys to create lasting change is actually due to faulty or nonexistent action planning or survey followup.

Seven steps of action planning are provided to give community pharmacies guidance on next steps to take to turn their survey results into actual patient safety culture improvement:

1. Understand your survey results.
2. Communicate and discuss the survey results.
3. Develop focused action plans.

4. Communicate action plans and deliverables.
5. Implement action plans.
6. Track progress and evaluate impact.
7. Share what works.

Purpose and Use of This Report

In response to requests from community pharmacies interested in comparing results with those of other pharmacies on the *Community Pharmacy Survey on Patient Safety Culture,* the Agency for Healthcare Research and Quality established the Community Pharmacy Survey on Patient Safety Culture Comparative Database.

The *Community Pharmacy Survey on Patient Safety Culture 2015 User Comparative Database Report* is the first comparative database focusing on community pharmacies in the suite of AHRQ Patient Safety Culture comparative databases and consists of data from 255 community pharmacies and 1,603 staff respondents.

This comparative database report was developed as a tool for the following purposes:

- *Comparison*—To allow community pharmacies to compare their patient safety culture survey results with other community pharmacies.
- *Assessment and Learning*—To provide data to community pharmacies to facilitate internal assessment and learning in the patient safety improvement process.
- *Supplemental Information*—To provide supplemental information to help community pharmacies identify their strengths and areas of potential improvement in patient safety culture.

This report presents statistics (averages, standard deviations, minimum and maximum scores, and percentiles) on the patient safety culture composites and items from the survey.

Appendixes A and B present overall results by community pharmacy characteristics (average number of prescriptions filled per week and geographic region) and by respondent characteristics (staff position).

Chapter 1. Introduction

Patient safety is a critical component of health care quality. As community pharmacies continually strive to improve, there is growing recognition of the importance of establishing a culture of patient safety. Achieving a culture of patient safety requires an understanding of the values, beliefs, and norms about what is important in a community pharmacy and which patient safety-related attitudes and behaviors are supported, rewarded, and expected.

Survey Content

Recognizing the need for a measurement tool to assess the culture of patient safety in community pharmacies, the Agency for Healthcare Research and Quality (AHRQ) funded the development of the *Community Pharmacy Survey on Patient Safety Culture*. This work is an extension of research used to develop previous *Surveys on Patient Safety Culture*.

Developers reviewed research pertaining to patient safety, medication safety, pharmacy errors and quality-related events, error reporting, safety climate and culture, and organizational climate and culture. In addition, they reviewed existing pharmacy surveys. The researchers also consulted more than two dozen experts in the field of pharmacy practice and patient safety and many pharmacy staff for help in identifying key topics and issues. Based on these activities, the researchers identified a potential list of composites to include in the survey.

The survey was pilot tested and revised, and AHRQ released it in 2012. It is designed to assess community pharmacy staff opinions about patient safety issues, medical errors, and event reporting. The survey includes 36 items that measure 11 composites of patient safety culture. Each of the 11 patient safety culture composites is listed and defined in Table 1-1.

Table 1-1. Patient Safety Culture Composites and Definitions

Patient Safety Culture Composite	Definition: *The extent to which…*
1. Communication About Mistakes	Staff discuss mistakes that happen and can talk about ways to prevent mistakes.
2. Communication About Prescriptions Across Shifts	Information about prescriptions is communicated well across shifts and there are clear expectations and procedures for doing so.
3. Communication Openness	Staff freely speak up about patient safety concerns and feel comfortable asking questions; staff suggestions are valued.
4. Organizational Learning— Continuous Improvement	The pharmacy tries to figure out what problems in the work process lead to mistakes and makes changes to keep mistakes from happening again.
5. Overall Perceptions of Patient Safety	There is a strong focus and emphasis on patient safety and the pharmacy is good at preventing mistakes.
6. Patient Counseling	Patients are encouraged to talk to the pharmacist; pharmacists spend enough time talking to patients and tell them important information about new prescriptions.
7. Physical Space and Environment	The pharmacy is well organized and free of clutter; the pharmacy layout supports good workflow.
8. Response to Mistakes	The pharmacy examines why mistakes happen, helps staff learn from mistakes, and treats staff fairly when they make mistakes.

Patient Safety Culture Composite	Definition: *The extent to which…*
9. Staff Training and Skills	Staff get the training they need, new staff receive orientation, and staff have the skills they need to do their jobs well.
10. Staffing, Work Pressure, and Pace	There are enough staff to handle the workload, staff do not feel rushed, staff can take breaks, and work can be completed accurately despite distractions.
11. Teamwork	Staff treat each other with respect, work together as an effective team, and understand their roles and responsibilities.

In addition to the composite items, the survey includes three items about the frequency of documenting different types of mistakes. The survey also includes a question that asks respondents to provide an overall patient safety rating. Respondents are also asked to provide limited background demographic information.

The survey's toolkit materials are available at the AHRQ Web site (http://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyculture/pharmacy/index.html) and include the survey, survey items and dimensions, user's guide, information about a Data Entry and Analysis Tool, and a Community Pharmacy Patient Safety Improvement Resource List. The toolkit provides community pharmacies with the basic knowledge and tools needed to conduct a patient safety culture assessment and suggestions for using the data.

The *Community Pharmacy Survey on Patient Safety Culture* is available in Spanish on the AHRQ Web site. The Spanish translation is designed for U.S. Spanish-speaking respondents from different countries. Translation guidelines are available for download at the AHRQ Web site (http://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyculture/resources/transguide.pdf).

Data Limitations

The survey results presented in this report represent the largest known compilation of community pharmacy patient safety culture survey data currently available and therefore provide a useful reference for comparison. However, several limitations to these data should be kept in mind.

This is the first AHRQ Community Pharmacy Survey on Patient Safety Culture Comparative Database and the community pharmacies that submitted data to the database are not a statistically selected sample of all U.S. community pharmacies. The database includes only 255 community pharmacies that administered the survey and submitted their data, which represents less than 1 percent of the total number of community pharmacies in the United States (see Table 1-2).

Table 1-2 also shows the geographic distribution of the community pharmacies in the AHRQ Community Pharmacy Survey on Patient Safety Culture database compared with the distribution of community pharmacies based on the National Association of Chain Drug Stores 2011–2012 Chain Pharmacy Industry Profile and the 2014 National Community Pharmacists Association Digest. Clearly the 2015 pharmacy database has far fewer pharmacies represented by region than exist nationally.

Table 1-2. Distribution of AHRQ Database Community Pharmacies (2015) by Region Compared With Community Pharmacies Nationally

Geographic Region	AHRQ Database Community Pharmacies (2015)		National Association of Chain Drug Stores (2011–2012)		National Community Pharmacists Association (2014)	
	Number	Percent	Number	Percent	Number	Percent
New England/Mid-Atlantic	8	3%	11,406	19%	11,666	20%
South Atlantic	22	9%	12,224	20%	13,131	22%
East Central	53	21%	13,727	23%	13,068	22%
West Central	113	44%	11,299	19%	10,998	18%
Mountain/Pacific	59	23%	11,479	19%	10,908	18%
Total	255	100%	60,135	100%	59,771	100%

Note: Percentages may not add to exactly 100 percent due to rounding. States are categorized into regions as follows: New England/Mid-Atlantic: CT, MA, ME, NH, NJ, NY, PA, RI, VT; South Atlantic: DC, DE, FL, GA, MD, NC, SC, VA, WV; East Central: AL, IL, IN, KY, MI, MS, OH, TN, WI; West Central: AR, IA, KS, LA, MN, MO, ND, NE, OK, SD, TX; Mountain/Pacific: AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY.

Among community pharmacies that submitted data, only 3 percent are independent, while nationally 34 percent of community pharmacies are independent.[ii]

Another consideration when reading this report is that average percent positive scores on the survey's composites are much higher for community pharmacies participating in the 2015 database compared with patient safety culture results presented in similar comparative database reports for hospitals, medical offices, and nursing homes.

In addition, community pharmacies that administered the survey were not required to undergo any training and administered the survey in different ways. Some community pharmacies used a paper-only survey and others used Web-only surveys. These different modes could lead to differences in survey responses; further research is needed to determine whether and how different modes affect the results.

Finally, the data that the community pharmacies submitted have been cleaned for blank records (where responses to all survey items were missing or "Don't know" with the exception of demographic items) and straight-lining (where responses to all survey items in a section were the same even though at least one item was negatively worded). Otherwise, data are presented as submitted. No additional attempts were made to verify or audit the accuracy of the data submitted.

[ii] Based on the distribution of community pharmacies in the National Association of Chain Drug Stores 2011–2012 Chain Pharmacy Industry Profile.

Chapter 2. Survey Administration Statistics

This chapter presents descriptive information on how the 2015 database community pharmacies administered the survey.

Highlights

- The 2015 database consists of data from 1,603 community pharmacy staff respondents from 255 participating community pharmacies.
- The average community pharmacy response rate was 64 percent, with an average of 6 completed surveys per pharmacy.

The 2015 database consists of survey data from 255 community pharmacies with a total of 1,603 pharmacy staff respondents. Participating pharmacies administered the community pharmacy survey to their staff between November 2013 and November 2014 and voluntarily submitted their data for inclusion in the database.

Overall response rate statistics for the 2015 database are shown in Table 2-1. An average of 6 completed surveys were submitted per pharmacy (range: 3 to 29), with an average community pharmacy response rate of 64 percent (range: 17 to 100 percent).

Table 2-1. Overall Response Rate Statistics—2015 Database Community Pharmacies

Response Rate Information	Statistic
Number of respondents	1,603
Number of surveys administered	2,834
Overall response rate	57%
Average number of respondents per pharmacy (range: 3 to 29)	6
Average number of surveys administered per pharmacy (range: 3 to 97)	11
Overall average pharmacy response rate (range: 17% to 100%)	64%

Most community pharmacies administered the survey by Web only (93 percent), as shown in Table 2-2; however, paper-only administration had the highest average response rate (93 percent). Web-only administration had a response rate of 61 percent.

Table 2-2. Survey Administration Mode Statistics—2015 Database Community Pharmacies

Survey Administration Mode	Database Community Pharmacies		Database Respondents	
	Number	Percent	Number	Percent
Paper only	17	7%	130	8%
Web only	238	93%	1,473	92%
Total	255	100%	1,603	100%

Chapter 3. Community Pharmacy Characteristics

This chapter presents information about the distribution of database community pharmacies by type of pharmacy, average number of prescriptions filled per week, and geographic region.

Highlights

- More than half of the database community pharmacies (53 percent) were chain drugstores (local, regional, national) or integrated health system pharmacies (non-hospital unit based).
- The largest percentage of the database community pharmacies reported an average of 701 to 1,500 prescriptions filled per week (42 percent).
- The West Central region had the largest percentage of database pharmacies (44 percent).

Pharmacy Type

Table 3-1 shows the distribution of community pharmacies and respondents by pharmacy type. Slightly more than half (53 percent) of database community pharmacies were chain drugstore (local, regional, national)/integrated health system pharmacy (non-hospital unit based) and accounted for 64 percent of database respondents.

Table 3-1. Distribution of 2015 Database Community Pharmacies

Pharmacy Type	Database Community Pharmacies		Database Respondents	
	Number	Percent	Number	Percent
Independent pharmacy	7	3%	88	5%
Supermarket pharmacy/mass merchant pharmacy	112	44%	488	30%
Chain drugstore (local, regional, national)/integrated health system pharmacy (non-hospital unit based)	136	53%	1,027	64%
Total	255	100%	1,603	100%

Note: Percentages may not add to exactly 100 percent due to rounding.

Average Number of Prescriptions Filled per Week

As shown in Table 3-2, the largest percentage of database pharmacies reported an average of 701 to 1,500 prescriptions filled per week (42 percent) and accounted for 47 percent of database respondents.

Table 3-2. Average Number of Prescriptions Filled per Week: Distribution of 2015 Database Community Pharmacies

Average Number of Prescriptions Filled per Week	Database Community Pharmacies		Database Respondents	
	Number	Percent	Number	Percent
700 or fewer	67	26%	359	22%
701 to 1,500	108	42%	751	47%
1,501 or more	80	31%	493	31%
Total	255	100%	1,603	100%

Note: Percentages may not add to exactly 100 percent due to rounding.

Geographic Region

Table 3-3 shows the distribution of database pharmacies by geographic region. The largest percentage of database pharmacies was from the West Central region (44 percent) and accounted for 56 percent of database respondents.

Table 3-3. Geographic Region: Distribution of 2015 Database Community Pharmacies and Respondents

Geographic Region	Database Community Pharmacies		Database Respondents	
	Number	Percent	Number	Percent
New England/Mid-Atlantic	8	3%	72	4%
South Atlantic	22	9%	105	7%
East Central	53	21%	254	16%
West Central	113	44%	905	56%
Mountain/Pacific	59	23%	267	17%
Total	255	100%	1,603	100%

Note: Percentages may not add to exactly 100 percent due to rounding. States are categorized into regions as follows: New England/Mid-Atlantic: CT, MA, ME, NH, NJ, NY, PA, RI, VT; South Atlantic: DC, DE, FL, GA, MD, NC, SC, VA, WV; East Central: AL, IL, IN, KY, MI, MS, OH, TN, WI; West Central: AR, IA, KS, LA, MN, MO, ND, NE, OK, SD, TX; Mountain/Pacific: AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY.

Chapter 4. Characteristics of Respondents

This chapter describes the respondents within the participating community pharmacies. Respondents from community pharmacies who omitted a question are shown as missing in the tables and are excluded from total percentages in this chapter.

Highlights

- The two most frequent staff positions of respondents were:

    o Pharmacy technician (42 percent)
    o Pharmacist (35 percent)

- More than one-fourth of respondents (28 percent) had worked in their pharmacy for 1 year to less than 3 years.
- Most respondents (63 percent) worked between 32 and 40 hours per week.

Staff Position

Table 4-1 shows the distribution of respondents by staff position. Respondents most frequently selected "Pharmacy technician" (42 percent) as their staff position, followed by "Pharmacist" (35 percent).

Table 4-1. Staff Position: Distribution of 2015 Database Community Pharmacy Respondents

Community Pharmacy Staff Position	Database Respondents	
	Number	**Percent**
Pharmacy technician (including lead technician and staff technician)	673	42%
Pharmacist (including pharmacy manager, lead pharmacist, pharmacist-in-charge, staff pharmacist)	553	35%
Pharmacy clerk or pharmacy cashier	291	18%
Other	58	4%
Pharmacy student intern/extern	23	1%
Total	1,598	100%
Missing	5	
Overall	1,603	

Additional Characteristics of Respondents

Tables 4-2 and 4-3 show the distribution of respondents by tenure and hours worked per week. Abould half of the respondents (51 percent) had worked in the pharmacy for 3 or more years and most (63 percent) worked 32 to 40 hours per week.

Table 4-2. Tenure in Pharmacy: Distribution of 2015 Database Community Pharmacy Respondents

Tenure in Pharmacy	Database Respondents	
	Number	Percent
Less than 6 months	98	12%
6 months to less than 1 year	75	9%
1 year to less than 3 years	232	28%
3 years to less than 6 years	160	19%
6 years to less than 12 years	135	16%
12 years or more	121	15%
Total	821	100%
Missing	782	
Overall total	1,603	

Note: Percentages may not add to exactly 100 percent due to rounding.

Table 4-3. Hours Worked per Week: Distribution of 2015 Database Community Pharmacy Respondents

Hours Worked per Week in Pharmacy	Database Respondents	
	Number	Percent
1 to 16 hours	52	6%
17 to 31 hours	121	15%
32 to 40 hours	516	63%
More than 40 hours	132	16%
Total	821	100%
Missing	782	
Overall total	1,603	

Chapter 5. Overall Results

This chapter presents the overall survey results for the database, showing the average percentage of positive responses across the database community pharmacies on each of the survey's items and composites. Reporting the average across community pharmacies ensures that each pharmacy receives an equal weight when contributing to the overall average.

Reporting the data at the pharmacy level in this way is important because culture is considered to be a group characteristic and is not considered to be a solely individual characteristic. An alternative method would be to report a straight percentage of positive responses across all respondents, but this method would give greater weight to respondents from larger community pharmacies.

Highlights

- The areas of strength or the composite with the highest average percent positive responses were:

  o *Patient Counseling* (average 95 percent positive)
  o *Communication Openness* (average 87 percent positive)

- The area with potential for improvement or the composite with the lowest average percent positive responses was:

  o Staffing, Work Pressure, and Pace (average 44 percent positive)

- In response to the question "When a mistake reaches the patient and could cause harm but does not, how often is it documented?" most pharmacies reported always or most of the time (average 94 percent positive).

- On average across community pharmacies, most respondents (86 percent) gave their pharmacy an Overall Rating on Patient Safety of "Excellent" (52 percent) or "Very good" (35 percent) (percentages do not add to 86 due to rounding).

Composite and Item-Level Charts

This section provides the overall item and composite-level results. The methods for calculating the percent positive scores at the item and composite levels are described in the Notes section of this report.

Composite-Level Results

Chart 5-1 shows the average percent positive response for each of the 11 patient safety culture composites across community pharmacies in the database. The patient safety culture composites are shown in order from the highest average percent positive response to the lowest.

Areas of Strength

- *Patient Counseling (average 95 percent positive)*—Patients are encouraged to talk to the pharmacist; pharmacists spend enough time talking to patients and tell them important information about new prescriptions.
- *Communication Openness (average 87 percent positive)*—Staff freely speak up about patient safety concerns and feel comfortable asking questions; staff suggestions are valued.

Area With Potential for Improvement

- *Staffing, Work Pressure, and Pace (average 44 percent positive)*—There are enough staff to handle the workload, staff do not feel rushed, staff can take breaks, and work can be completed accurately despite distractions.

Item-Level Results

Chart 5-2 shows the average percent positive response for each of the 36 survey composite items. The items are grouped by the patient safety culture composite they are intended to measure. Within each composite, the items are presented in the order in which they appear in the survey. Chart 5-3 shows the results from the items that asked respondents how often different types of mistakes were documented in their pharmacy.

Area of Strength for the Patient Safety Culture Composite Items

- The composite items with the highest average percent positive responses (96 percent positive) were from the patient safety culture composite *Patient Counseling:* (B2) "We encourage patients to talk to pharmacists about their medications" and (B11) "Our pharmacists tell patients important information about their new prescriptions."

Area With Potential for Improvement for the Patient Safety Culture Composite Items

- The composite item with the lowest average percent positive response (21 percent positive) was from the patient safety culture composite *Staffing, Work Pressure, and Pace*: (B9R) "We feel rushed when processing prescriptions" (that is, an average of only 21 percent of respondents in each pharmacy responded "Never" or "Rarely" to this negatively worded item).

Area of Strength for the Documenting Mistakes Items

- The item with the highest average percent positive response (94 percent positive) was: (D1) "When a mistake reaches the patient and could cause harm but does not, how often is it documented?"

Area With Potential for Improvement for the Documenting Mistakes Items

- The item with the lowest average percent positive response (57 percent positive) was: (D3) "When a mistake that could have harmed the patient is corrected BEFORE the medication leaves the pharmacy, how often is it documented?"

Chart 5-1. Composite-Level Average Percent Positive Response—2015 Database Community Pharmacies

Patient Safety Culture Composites	% Positive Response
1. Patient Counseling	95%
2. Communication Openness	87%
3. Communication About Mistakes	86%
4. Overall Perceptions of Patient Safety	85%
5. Teamwork	82%
6. Organizational Learning—Continuous Improvement	82%
7. Communication About Prescriptions Across Shifts	82%
8. Response to Mistakes	79%
9. Staff Training and Skills	79%
10. Physical Space and Environment	72%
11. Staffing, Work Pressure, and Pace	44%

Chart 5-2. Item-Level Average Percent Positive Response—2015 Database Community Pharmacies (Page 1 of 4)

Survey Items By Patient Safety Culture Composite	Survey Item % Positive Response

1. Patient Counseling

1. We encourage patients to talk to pharmacists about their medications. (B2) — **96%**

2. Our pharmacists spend enough time talking to patients about how to use their medications. (B7) — **92%**

3. Our pharmacists tell patients important information about their new prescriptions. (B11) — **96%**

2. Communication Openness

1. Staff ideas and suggestions are valued in this pharmacy. (B1) — **80%**

2. Staff feel comfortable asking questions when they are unsure about something. (B5) — **92%**

3. It is easy for staff to speak up to their supervisor/manager about patient safety concerns in this pharmacy. (B10) — **89%**

3. Communication About Mistakes

1. Staff in this pharmacy discuss mistakes. (B8) — **85%**

2. When patient safety issues occur in this pharmacy, staff discuss them. (B13) — **86%**

3. In this pharmacy, we talk about ways to prevent mistakes from happening again. (B15) — **87%**

Note: The item's survey location is shown after the item text. 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).

Survey Items By Patient Safety Culture Composite	Survey Item % Positive Response

4. Overall Perceptions of Patient Safety

1. This pharmacy places more emphasis on sales than on patient safety. (C3R) — **75%**

2. This pharmacy is good at preventing mistakes. (C6) — **86%**

3. The way we do things in this pharmacy reflects a strong focus on patient safety. (C9) — **92%**

5. Teamwork

1. Staff treat each other with respect. (A2) — **83%**

2. Staff in this pharmacy clearly understand their roles and responsibilities. (A4) — **81%**

3. Staff work together as an effective team. (A9) — **82%**

6. Organizational Learning—Continuous Improvement

1. When a mistake happens, we try to figure out what problems in the work process led to the mistake. (C2) — **89%**

2. When the same mistake keeps happening, we change the way we do things. (C5) — **81%**

3. Mistakes have led to positive changes in this pharmacy. (C10) — **75%**

Note: The item's survey location is shown after the item text. 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 5-2. Item-Level Average Percent Positive Response—2015 Database Community Pharmacies (Page 3 of 4)

Survey Items By Patient Safety Culture Composite	Survey Item % Positive Response

7. Communication About Prescriptions Across Shifts

1. We have clear expectations about exchanging important prescription information across shifts. (B4) — **84%**

2. We have standard procedures for communicating prescription information across shifts. (B6) — **81%**

3. The status of problematic prescriptions is well communicated across shifts. (B14) — **80%**

8. Response to Mistakes

1. Staff are treated fairly when they make mistakes. (C1) — **82%**

2. This pharmacy helps staff learn from their mistakes rather than punishing them. (C4) — **82%**

3. We look at staff actions and the way we do things to understand why mistakes happen in this pharmacy. (C7) — **85%**

4. Staff feel like their mistakes are held against them. (C8R) — **68%**

9. Staff Training and Skills

1. Technicians in this pharmacy receive the training they need to do their jobs. (A3) — **81%**

2. Staff in this pharmacy have the skills they need to do their jobs well. (A6) — **86%**

3. Staff who are new to this pharmacy receive adequate orientation. (A8) — **72%**

4. Staff get enough training from this pharmacy. (A10) — **77%**

Note: The item's survey location is shown after the item text. 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).

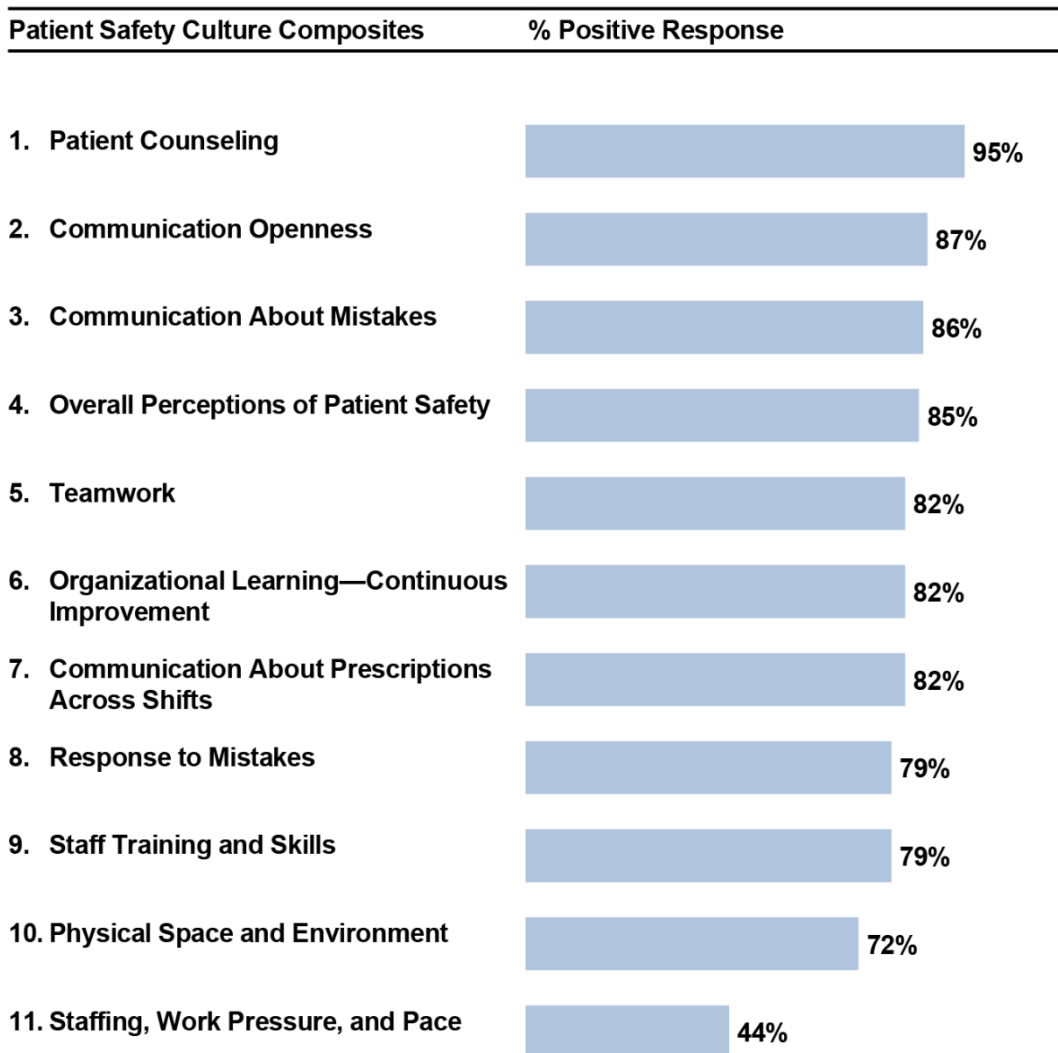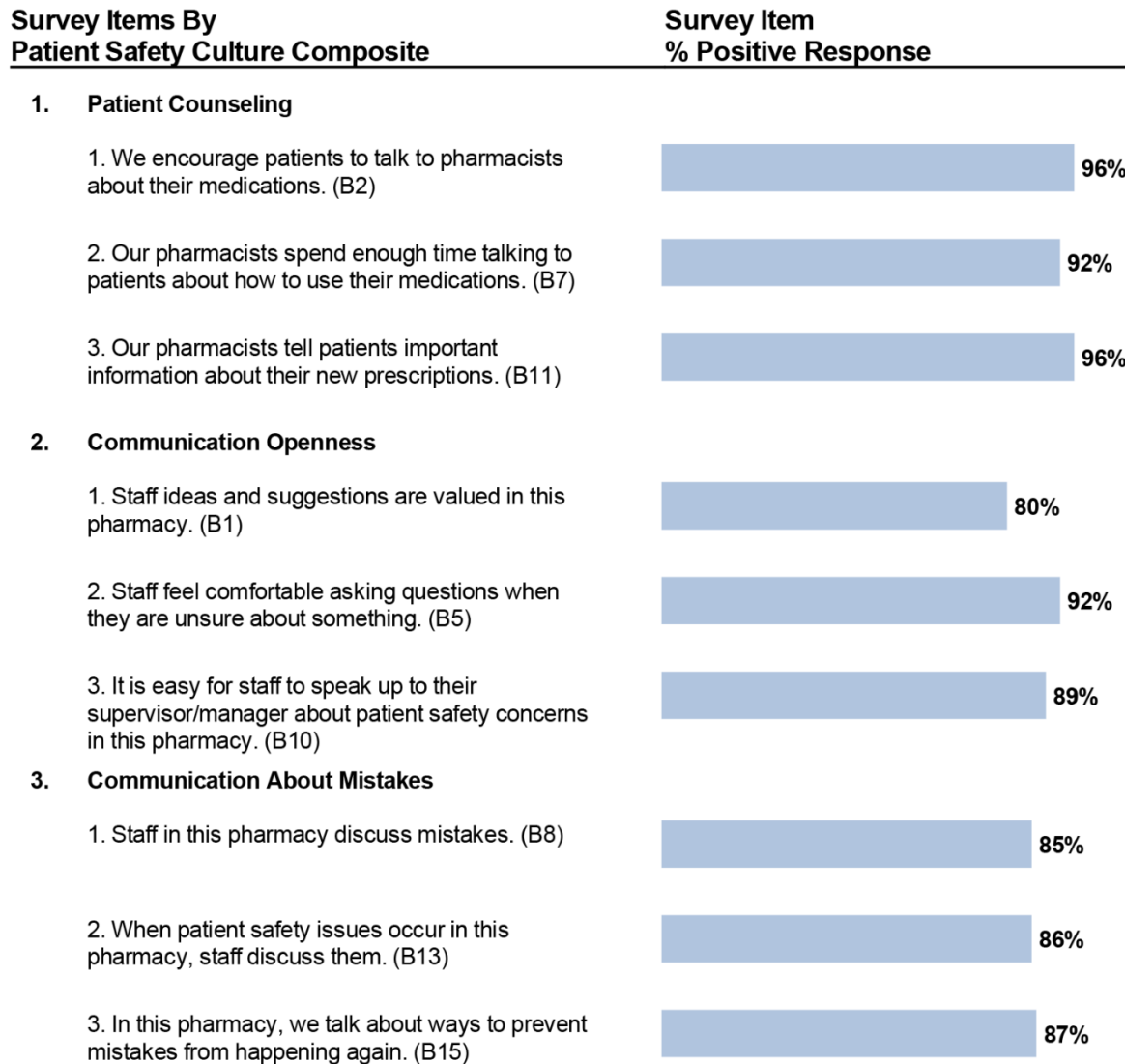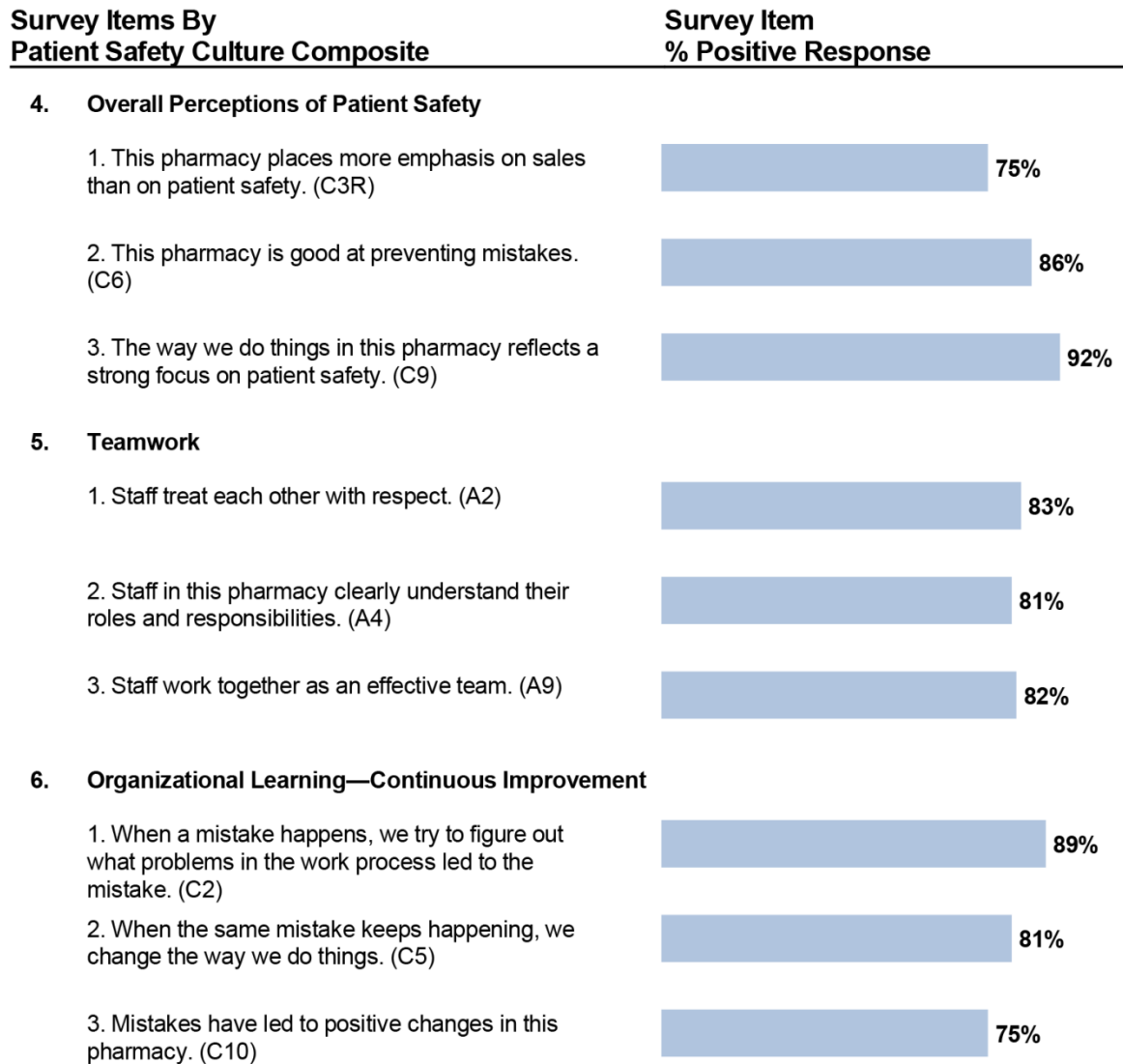**Chart 5-2. Item-Level Average Percent Positive Response—2015 Database Community Pharmacies (Page 4 of 4)**

Survey Items By Patient Safety Culture Composite	Survey Item % Positive Response

10. Physical Space and Environment

1. This pharmacy is well organized. (A1) — **83%**

2. This pharmacy is free of clutter. (A5) — **73%**

3. The physical layout of this pharmacy supports good workflow. (A7) — **61%**

11. Staffing, Work Pressure, and Pace

1. Staff take adequate breaks during their shifts. (B3) — **68%**

2. We feel rushed when processing prescriptions. (B9R) — **21%**

3. We have enough staff to handle the workload. (B12) — **58%**

4. Interruptions/distractions (from phone calls, faxes, customers, etc.) in this pharmacy make it difficult for staff to work accurately. (B16R) — **31%**
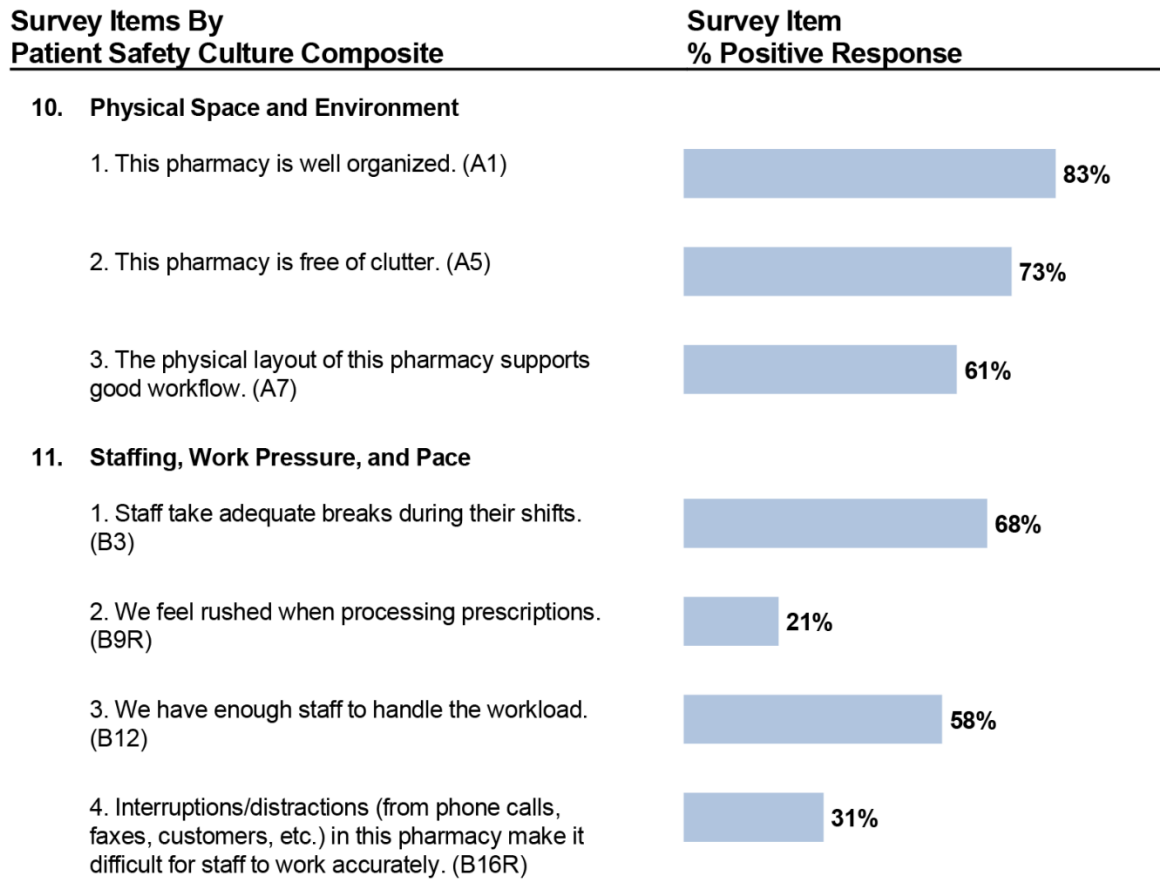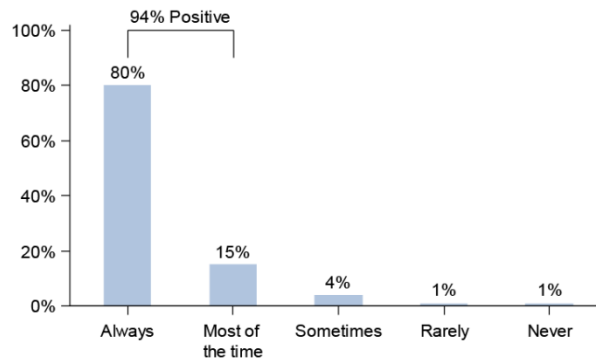
Note: The item's survey location is shown after the item text. An "R" indicates a negatively worded item, where the percent positive response is based on those who responded "Strongly disagree" or "Disagree," or "Never" or "Rarely" (depending on the response category used for the item).

Chart 5-3. Item-Level Average Ratings on Documenting Mistakes—2015 Database Community Pharmacies

In this pharmacy, how often are the following types of mistakes documented (in writing OR tracked electronically)?

D1. When a mistake reaches the patient and could cause harm but does not, how often is it documented?

94% Positive

Always	Most of the time	Sometimes	Rarely	Never
80%	15%	4%	1%	1%

D2. When a mistake reaches the patient but has no potential to harm the patient, how often is it documented?

91% Positive

Always	Most of the time	Sometimes	Rarely	Never
71%	19%	7%	2%	1%

D3. When a mistake that could have harmed the patient is corrected BEFORE the medication leaves the pharmacy, how often is it documented?

57% Positive

Always	Most of the time	Sometimes	Rarely	Never
35%	22%	19%	13%	11%

Note: (1) Percentages indicate average percent response for each item response category across the 2015 database community pharmacies. (2) The percent positive displayed may not equal the sum of the response option percentages due to rounding. (3) All five percentages may not add to 100 percent due to rounding.

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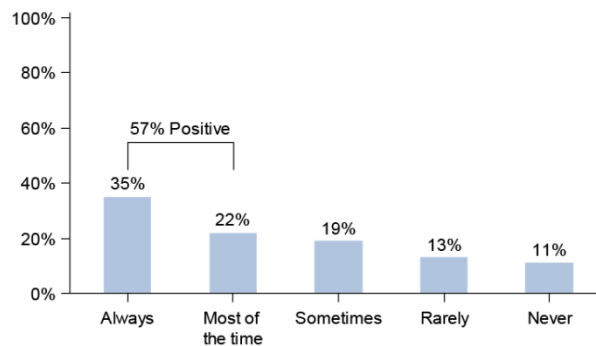
Overall Rating on Patient Safety

Chart 5-4 shows the results from the item that asked respondents to give their pharmacy an overall rating on patient safety. On average across community pharmacies, most respondents were positive, with 86 percent giving their pharmacy a rating of "Excellent" or "Very good" (52 percent and 35 percent, respectively).[iii]

Chart 5-4. Average Percentage of 2015 Database Respondents for Overall Rating on Patient Safety

E1.   How do you rate this pharmacy on patient safety?

86% Positive

Excellent	Very good	Good	Fair	Poor
52%	35%	11%	2%	1%

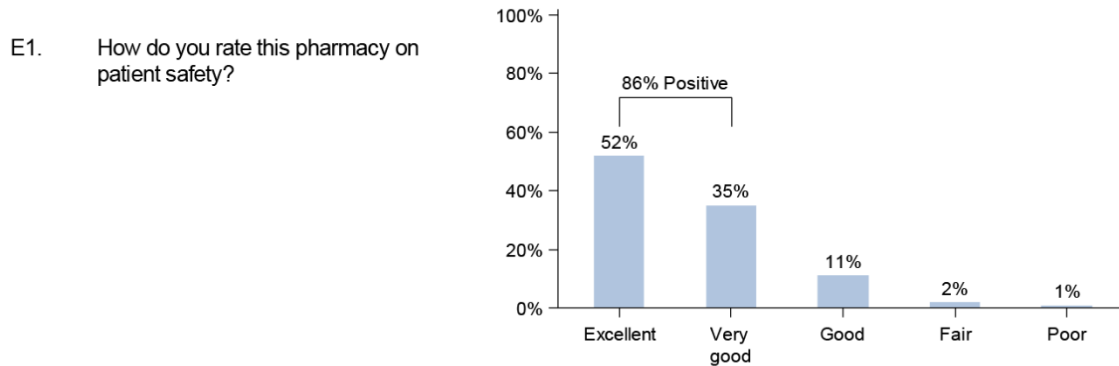**Note:** (1) Percentages indicate average percent response for each item response category across the 2015 database community pharmacies. (2) The percent positive displayed may not equal the sum of the response option percentages due to rounding. (3) All five percentages may not add to 100 percent due to rounding.

[iii] The percent positive displayed may not equal the sum of the response option percentages due to rounding.

Chapter 6. Comparing Your Results

To compare your community pharmacy's survey results with the results from the database, you need to calculate your community pharmacy's percent positive response on the survey's 11 composites and survey items, including three questions on documenting mistakes and an overall rating on patient safety. The Notes section at the end of this report describes how to calculate these percent positive scores. You can then compare your community pharmacy's results with the database averages and examine the percentile scores to place your community pharmacy's results relative to the distribution of database community pharmacies.

When comparing your community pharmacy's results with results from the database, keep in mind that the database only provides *relative* comparisons. Even though your community pharmacy's survey results may be very positive, you may still believe there is room for improvement in a particular area within your community pharmacy in an *absolute* sense.

The comparative data provided in this report should be used to supplement your community pharmacy's own efforts to identify areas of strength and areas on which to focus patient safety culture improvement activities.

Highlights

- The range of composite scores were generally positive:

  - *Patient Counseling* was the most positive, with the 50th percentile at 100 percent.
  - *Staffing, Work Pressure, and Pace* and *Physical Space and Environment* showed the most variability, with responses ranging from 0 percent to a high score of 100 percent.

- Many of the items showed a range of positive responses from 0 to 100 percent.

Description of Comparative Statistics

In addition to the average percent positive scores presented in Chapter 5, a number of other statistics are provided to facilitate comparisons with the database community pharmacies. A description of each statistic shown in this chapter is provided next.

Average Percent Positive

The comparative results tables in this chapter present the average percent positive scores for each of the 11 patient safety culture composites and for the 36 survey items. In addition, the report includes both average percent positive and average scores for the three items on documenting mistakes and the overall rating on patient safety question. These average percent positive scores were calculated by averaging composite-level percent positive scores across all community pharmacies in the database, as well as averaging item-level percent positive scores across

community pharmacies. Since the percent positive is displayed as an overall average, scores from each pharmacy are weighted equally in their contribution to the calculation of the average.[iv]

Standard Deviation

The standard deviation (s.d.), a measure of the spread or variability of community pharmacy scores around the average, is also displayed. The standard deviation tells you the extent to which community pharmacies' scores differ from the average:

- If scores from all community pharmacies were exactly the same, then the average would represent all their scores perfectly and the standard deviation would be zero.
- If scores from all community pharmacies were very close to the average, then the standard deviation would be small and close to zero.
- If scores from many community pharmacies were very different from the average, then the standard deviation would be a large number.

When the distribution of community pharmacy scores follows a normal bell-shaped curve (where most of the scores fall in the middle of the distribution, with fewer scores at the lower and higher ends of the distribution), the average, plus or minus the standard deviation, will include about 68 percent of all community pharmacy scores. For example, if an average percent positive score across the database community pharmacy was 70 percent with a standard deviation of 10 percent (and scores were normally distributed), then about 68 percent of all the database community pharmacies would have scores between 60 and 80 percent positive.

Statistically "Significant" Differences Between Scores

You may be interested in determining the statistical significance of differences between your scores and the averages in the database, or between scores in various breakout categories (average number of prescriptions filled per week, geographic region, etc). Statistical significance is greatly influenced by sample size; as the number of observations in comparison groups increase, small differences in scores become statistically significant. While a 1 percentage point difference between percent positive scores might be "statistically" significant (that is, not due to chance), the difference is not likely to be meaningful or "practically" significant.

Keep in mind that statistically significant differences are not always important, and nonsignificant differences are not always trivial. We provide the average, standard deviation, range, and percentile information so that you can compare your data with the database in different ways.

Minimum and Maximum Scores

The minimum (lowest) and maximum (highest) percent positive scores are presented for each composite and item. These scores provide information about the range of percent positive scores obtained by community pharmacies in the database and are actual scores from the lowest and highest scoring pharmacies. When comparing your data with the minimum and maximum scores,

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[iv] An alternative method would be to report a straight percentage of positive response across all respondents, but this method would give greater weight to respondents from larger community pharmacies.

keep in mind that these scores may represent community pharmacies that are extreme outliers (indicated by large differences between the minimum score and the 10th percentile score, or between the 90th percentile score and the maximum score).

Percentiles

The 10th, 25th, 50th (or median), 75th, and 90th percentile scores are displayed for the survey composites and items. Percentiles provide information about the distribution of community pharmacy scores. To calculate percentile scores, we ranked all pharmacy percent positive scores in order from low to high. *A specific percentile score shows the percentage of community pharmacies that scored at or below a particular score.* For example, the 50th percentile, or median, is the percent positive score where 50 percent of the community pharmacies scored the same or lower and 50 percent of the community pharmacies scored higher.

When the distribution of community pharmacy scores follows a normal bell-shaped curve (where most of the scores fall in the middle of the distribution with fewer scores at the lower and higher ends of the distribution), the 50th percentile, or median, will be very similar to the average score. Interpret the percentile scores as shown in Table 6-1.

Table 6-1. Interpretation of Percentile Scores

Percentile Score	Interpretation
10th percentile Represents the lowest scoring community pharmacies.	10% of community pharmacies scored the same or lower. 90% of community pharmacies scored higher.
25th percentile Represents lower scoring community pharmacies.	25% of community pharmacies scored the same or lower. 75% of community pharmacies scored higher.
50th percentile (or median) Represents the middle of the distribution of community pharmacies.	50% of community pharmacies scored the same or lower. 50% of community pharmacies scored higher.
75th percentile Represents higher scoring community pharmacies.	75% of community pharmacies scored the same or lower. 25% of community pharmacies scored higher.
90th percentile Represents the highest scoring community pharmacies.	90% of community pharmacies scored the same or lower. 10% of community pharmacies scored higher.

To compare with the database percentiles, compare your community pharmacy's percent positive scores with the percentile scores for each composite and item. Look for the highest percentile where your pharmacy's score is *higher* than that percentile.

For example: On survey item 1 in Table 6-2, the 75th percentile score is 70 percent positive, and the 90th percentile score is 80 percent positive.

Table 6-2. Sample Percentile Statistics

Survey Item	Average % Positive	s.d.	Min	10th %ile	25th %ile	Median/ 50th %ile	75th % ile	90th %ile	Max
						Survey Item % Positive Response			
Item 1	36%	17.43%	0%	20%	30%	45%	70%	▲80%▲	100%

If your pharmacy's score is 78 percent, your score falls here:

If your pharmacy's score is 85 percent, your score falls here:

- If your pharmacy's score is 78 percent positive, it falls above the 75th percentile (but below the 90th), meaning that your pharmacy scored higher than at least 75 percent of the community pharmacies in the database.
- If your pharmacy's score is 85 percent positive, it falls above the 90th percentile, meaning your pharmacy scored higher than at least 90 percent of the community pharmacies in the database.

Composite and Item-Level Comparative Tables

Table 6-3 presents comparative statistics (average percent positive, standard deviation, minimum and maximum scores, and percentiles) for each of the 11 patient safety culture composites. The patient safety culture composites are shown in order from the highest average percent positive response to the lowest.

Table 6-4 presents comparative statistics for each of the 36 survey items. The survey items are grouped by the patient safety culture composite they are intended to measure. Within each composite, the items are presented in the order in which they appear in the survey.

Table 6-5 and 6-6 present comparative statistics for the three items on Documenting Mistakes and the Overall Rating on Patient Safety, respectively.

Table 6-3. Composite-Level Comparative Results—2015 Database Community Pharmacies

Patient Safety Culture Composites	Average % Positive	s.d.	Composite % Positive Response						
			Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max
1. Patient Counseling	95%	9.04%	56%	80%	93%	100%	100%	100%	100%
2. Communication Openness	87%	14.28%	30%	67%	80%	90%	100%	100%	100%
3. Communication About Mistakes	86%	16.13%	25%	64%	78%	92%	100%	100%	100%
4. Overall Perceptions of Patient Safety	85%	13.57%	33%	67%	78%	89%	95%	100%	100%
5. Teamwork	82%	18.62%	20%	53%	71%	88%	100%	100%	100%
6. Organizational Learning—Continuous Improvement	82%	15.98%	8%	61%	71%	86%	93%	100%	100%
7. Communication About Prescriptions Across Shifts	82%	19.17%	22%	51%	70%	86%	100%	100%	100%
8. Response to Mistakes	79%	16.44%	25%	56%	70%	83%	92%	100%	100%
9. Staff Training and Skills	79%	21.23%	8%	45%	70%	83%	96%	100%	100%
10. Physical Space and Environment	72%	21.94%	0%	43%	58%	76%	89%	100%	100%
11. Staffing, Work Pressure, and Pace	44%	17.96%	0%	22%	32%	43%	55%	68%	100%

Table 6-4. Item-Level Comparative Results—2015 Database Community Pharmacies (Page 1 of 4)

Survey Items By Composite	Average % Positive	s.d.	Survey Item % Positive Response						
			Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max
1. Patient Counseling									
1. We encourage patients to talk to pharmacists about their medications. (B2)	96%	9.67%	33%	80%	100%	100%	100%	100%	100%
2. Our pharmacists spend enough time talking to patients about how to use their medications. (B7)	92%	15.58%	33%	67%	88%	100%	100%	100%	100%
3. Our pharmacists tell patients important information about their new prescriptions. (B11)	96%	9.71%	33%	81%	100%	100%	100%	100%	100%
2. Communication Openness									
1. Staff ideas and suggestions are valued in this pharmacy. (B1)	80%	21.50%	0%	50%	67%	83%	100%	100%	100%
2. Staff feel comfortable asking questions when they are unsure about something. (B5)	92%	14.23%	0%	73%	88%	100%	100%	100%	100%
3. It is easy for staff to speak up to their supervisor/manager about patient safety concerns in this pharmacy. (B10)	89%	16.08%	30%	67%	80%	100%	100%	100%	100%
3. Communication About Mistakes									
1. Staff in this pharmacy discuss mistakes. (B8)	85%	17.95%	25%	60%	72%	92%	100%	100%	100%
2. When patient safety issues occur in this pharmacy, staff discuss them. (B13)	86%	19.03%	0%	60%	75%	100%	100%	100%	100%
3. In this pharmacy, we talk about ways to prevent mistakes from happening again. (B15)	87%	18.02%	33%	64%	78%	100%	100%	100%	100%

Note: The item's survey location is shown after the item text. 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).

Table 6-4. Item-Level Comparative Results—2015 Database Community Pharmacies (Page 2 of 4)

Survey Items By Composite	Average % Positive	s.d.	Survey Item % Positive Response						
			Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max
4. Overall Perceptions of Patient Safety									
1. This pharmacy places more emphasis on sales than on patient safety. (C3R)	75%	22.71%	0%	40%	67%	78%	100%	100%	100%
2. This pharmacy is good at preventing mistakes. (C6)	86%	18.96%	0%	60%	75%	100%	100%	100%	100%
3. The way we do things in this pharmacy reflects a strong focus on patient safety. (C9)	92%	13.94%	25%	75%	86%	100%	100%	100%	100%
5. Teamwork									
1. Staff treat each other with respect. (A2)	83%	21.23%	0%	50%	70%	90%	100%	100%	100%
2. Staff in this pharmacy clearly understand their roles and responsibilities. (A4)	81%	21.80%	0%	50%	67%	87%	100%	100%	100%
3. Staff work together as an effective team. (A9)	82%	21.65%	0%	53%	67%	88%	100%	100%	100%
6. Organizational Learning—Continuous Improvement									
1. When a mistake happens, we try to figure out what problems in the work process led to the mistake. (C2)	89%	16.23%	25%	67%	80%	100%	100%	100%	100%
2. When the same mistake keeps happening, we change the way we do things. (C5)	81%	20.12%	0%	56%	67%	86%	100%	100%	100%
3. Mistakes have led to positive changes in this pharmacy. (C10)	75%	22.02%	0%	45%	63%	75%	100%	100%	100%

Note: The item's survey location is shown after the item text. 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).

Table 6-4. Item-Level Comparative Results—2015 Database Community Pharmacies (Page 3 of 4)

Survey Items By Composite	Average % Positive	s.d.	Survey Item % Positive Response						
			Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max
7. Communication About Prescriptions Across Shifts									
1. We have clear expectations about exchanging important prescription information across shifts. (B4)	84%	19.63%	20%	55%	71%	89%	100%	100%	100%
2. We have standard procedures for communicating prescription information across shifts. (B6)	81%	20.65%	18%	50%	67%	86%	100%	100%	100%
3. The status of problematic prescriptions is well communicated across shifts. (B14)	80%	22.91%	0%	50%	67%	86%	100%	100%	100%
8. Response to Mistakes									
1. Staff are treated fairly when they make mistakes. (C1)	82%	19.82%	0%	57%	67%	86%	100%	100%	100%
2. This pharmacy helps staff learn from their mistakes rather than punishing them. (C4)	82%	20.54%	0%	57%	67%	86%	100%	100%	100%
3. We look at staff actions and the way we do things to understand why mistakes happen in this pharmacy. (C7)	85%	18.07%	0%	67%	75%	90%	100%	100%	100%
4. Staff feel like their mistakes are held against them. (C8R)	68%	25.44%	0%	33%	50%	69%	88%	100%	100%
9. Staff Training and Skills									
1. Technicians in this pharmacy receive the training they need to do their jobs. (A3)	81%	23.81%	0%	50%	67%	88%	100%	100%	100%
2. Staff in this pharmacy have the skills they need to do their jobs well. (A6)	86%	19.40%	20%	60%	75%	100%	100%	100%	100%
3. Staff who are new to this pharmacy receive adequate orientation. (A8)	72%	25.63%	0%	33%	60%	75%	100%	100%	100%
4. Staff get enough training from this pharmacy. (A10)	77%	25.04%	0%	38%	67%	83%	100%	100%	100%

Note: The item's survey location is shown after the item text. 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).

Table 6-4. Item-Level Comparative Results—2015 Database Community Pharmacies (Page 4 of 4)

Survey Items By Composite	Average % Positive	s.d.	Survey Item % Positive Response						
			Min	10th %ile	25th %ile	Median/ 50th %ile	75th %ile	90th %ile	Max
10. Physical Space and Environment									
1. This pharmacy is well organized. (A1)	83%	22.04%	0%	50%	71%	89%	100%	100%	100%
2. This pharmacy is free of clutter. (A5)	73%	27.31%	0%	33%	60%	80%	100%	100%	100%
3. The physical layout of this pharmacy supports good workflow. (A7)	61%	31.62%	0%	9%	33%	67%	85%	100%	100%
11. Staffing, Work Pressure, and Pace									
1. Staff take adequate breaks during their shifts. (B3)	68%	26.78%	0%	33%	50%	67%	100%	100%	100%
2. We feel rushed when processing prescriptions. (B9R)	21%	22.76%	0%	0%	0%	17%	33%	56%	100%
3. We have enough staff to handle the workload. (B12)	58%	31.92%	0%	11%	33%	67%	83%	100%	100%
4. Interruptions/distractions in this pharmacy (from phone calls, faxes, customers, etc.) make it difficult for staff to work accurately. (B16R)	31%	24.57%	0%	0%	13%	29%	50%	67%	100%

Note: The item's survey location is shown after the item text. 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).

Table 6-5. Item-Level Comparative Results on Documenting Mistakes—2015 Database Community Pharmacies

	Average % Positive	s.d.	Survey Item % Positive Response						
Documenting Mistakes			**Min**	**10th %ile**	**25th %ile**	**Median/ 50th %ile**	**75th %ile**	**90th %ile**	**Max**
1. When a mistake reaches the patient and could cause harm but does not, how often is it documented? (D1)	94%	12.01%	25%	80%	100%	100%	100%	100%	100%
2. When a mistake reaches the patient but has no potential to harm the patient, how often is it documented? (D2)	91%	14.27%	25%	67%	83%	100%	100%	100%	100%
3. When a mistake that could have harmed the patient is corrected BEFORE the medication leaves the pharmacy, how often is it documented? (D3)	57%	27.79%	0%	22%	33%	57%	75%	100%	100%

Note: The item's survey location is shown after the item text. For D1-D3, the percent positive response is based on those who responded "Most of the time documented" or "Always documented." For the full distribution of results, see Chart 5-3.

Table 6-6. Percentage of Respondents Giving Their Community Pharmacy an Overall Rating on Patient Safety of Excellent or Very Good—2015 Database Community Pharmacies

	Average % Positive	s.d.	Survey Item % Positive Response						
Overall Rating on Patient Safety			**Min**	**10th %ile**	**25th %ile**	**Median/ 50th %ile**	**75th %ile**	**90th %ile**	**Max**
Excellent/Very good	86%	19.63%	0%	62%	75%	100%	100%	100%	100%

Note: For the full distribution of results, see Chart 5-4.

Appendixes A and B: Overall Results by Community Pharmacy Characteristics and Respondent Characteristics

In addition to the overall results on the database community pharmacies presented, Part II of the report presents data tables showing average percent positive scores on the survey composites and items across database community pharmacies, broken down by the following pharmacy and respondent characteristics:

Appendix A: Results by Community Pharmacy Characteristics

- Average Number of Prescriptions Filled per Week
- Geographic Region

Appendix B: Results by Respondent Characteristics

- Staff Position

The breakout tables are included as appendixes because there are a large number of them. Highlights of the findings from the breakout tables in these appendixes are provided on the following pages. The appendixes are available on the Web at http://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyculture/pharmacy/index.html.

Highlights From Appendix A: Overall Results by Community Pharmacy Characteristics

Average Number of Prescriptions Filled per Week (Tables A-1, A-4)

- Community pharmacies with an average of *700 or fewer* prescriptions filled per week had the highest average percent positive on all 11 patient safety culture composites.
- The highest percentage of respondents who gave their pharmacy an Overall Rating on Patient Safety of "Excellent" or "Very good" came from community pharmacies with an average of *700 or fewer* prescriptions filled per week (90 percent); community pharmacies with *1,501 or more* had the lowest (85 percent).

Geographic Region (Tables A-5, A-8)

- Overall, community pharmacies did not have large differences across geographic regions on the 11 patient safety culture composites.
- Community pharmacies from the *New England/Mid-Atlantic/South Atlantic* and *Mountain/Pacific* regions had the highest percentage of respondents who gave their pharmacy an Overall Rating on Patient Safety of "Excellent" or "Very good" (89 percent); community pharmacies from the *West Central* region had the lowest (81 percent).

Highlights From Appendix B: Overall Results by Respondent Characteristics

Staff Position (Tables B-1, B-4)

- *Pharmacists* had the highest average percent positive response across the composites (83 percent); *Pharmacy technicians* and *pharmacy student interns/externs* had the lowest (76 percent each).
- *Pharmacy clerks/cashiers* had the highest percentage of respondents who gave their pharmacy an Overall Rating on Patient Safety of "Excellent" or "Very good" (92 percent); *Pharmacy student interns/externs* had the lowest (80 percent).

Chapter 7. What's Next? Action Planning for Improvement

The seven steps of action planning outlined in this chapter are primarily based on the book *Designing and Using Organizational Surveys: A Seven-Step Process* (Church & Waclawski, 1998).

Seven Steps of Action Planning

Administering the community pharmacy survey can be considered an "intervention," a means of educating staff and building awareness about issues of concern related to patient safety. But it should not be the only goal of conducting the survey. Administering the survey is not enough. The delivery of survey results is *not the end point* in the survey process; it is actually just the *beginning*. Often, the perceived failure of surveys as a means for creating lasting change is actually due to faulty or nonexistent action planning or survey followup.

Seven steps of action planning are provided to help your community pharmacy go beyond simply conducting a survey to realizing patient safety culture change. The seven steps of action planning are:

1. Understand your survey results.
2. Communicate and discuss survey results.
3. Develop focused action plans.
4. Communicate action plans and deliverables.
5. Implement action plans.
6. Track progress and evaluate impact.
7. Share what works.

Step 1: Understand Your Survey Results

It is important to review the survey results and interpret them before you develop action plans. Develop an understanding of your community pharmacy's key strengths and areas for improvement. Examine your community pharmacy's overall percent positive scores on the patient safety culture composites and items.

- Which areas were most and least positive?
- How do your community pharmacy's results compare with the results from the database community pharmacies?

Next, consider examining your survey data broken down by staff position.

- Are there different areas for improvement for different pharmacy staff?
- Do any patterns emerge?
- How do your community pharmacy's results for these breakouts compare with the results from the database community pharmacies?

After reviewing the survey results carefully, identify two or three areas for improvement to avoid focusing on too many issues at once. After you identify areas for improvement, you may find the Community Pharmacy Resource List beneficial (http://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyculture/pharmacy/resource_list/index.html).

Step 2: Communicate and Discuss the Survey Results

Common complaints among survey respondents are that they never get any feedback about survey results and have no idea whether anything ever happens as a result of a survey. It is therefore important to thank your staff for taking the time to complete the survey and let them know that you value their input. Sharing results from the survey throughout the community pharmacy shows your commitment to the survey and improvement process.

Use survey feedback as an impetus for change. However, to ensure respondent anonymity/ confidentiality, it is important to report data only if there are enough respondents in a particular category or group. As a rule of thumb, reporting data is not recommended if a category has fewer than three respondents. For example, if only two people in a staff position respond, that staff position's data should not be reported separately because there are too few respondents to provide complete assurance of anonymity/confidentiality.

Distribute summaries of the survey results throughout the community pharmacy in a top-down manner, beginning with senior management, administrators, and pharmacy senior leaders, followed by pharmacy store managers and then staff. Managers at all levels should be expected to carefully review the findings. Summarize key findings, but also encourage discussion about the results throughout the pharmacy. What do others see in the data and how do they interpret the results?

In some cases, it may not be completely clear why an area of patient safety culture was particularly low. Keep in mind that surveys are only one way of examining culture, so strive for a deeper understanding when needed. Conduct followup activities, such as focus groups or interviews with staff, to find out more about an issue, why it is problematic, and how it can be improved.

Step 3: Develop Focused Action Plans

Once you identify areas for improvement in patient safety culture, you need to develop formal written action plans to ensure progress toward change. Encourage and empower staff to develop action plans that are "SMART":

- Specific
- Measurable
- Achievable
- Relevant
- Time bound

When deciding whether a particular action plan or initiative would be a good fit in your facility, you may find *Will It Work Here? A Decisionmaker's Guide to Adopting Innovations* (Brach, et al., 2008) useful (http://www.innovations.ahrq.gov/guide/guideTOC.aspx). The guide helps users answer four overarching questions:

- Does this innovation fit?
- Should we do it here?

- Can we do it here?
- How can we do it here?

Identify funding, staffing, or other resources needed to implement action plans and take steps to obtain these resources, which are often fundamental obstacles hindering implementation of action plans. It is also important to identify other obstacles you may encounter when trying to implement change and to anticipate and understand the rationale behind any potential resistance toward proposed action plans.

In the planning stage, it is also important to identify quantitative and qualitative measures that can be used to evaluate progress and the impact of changes implemented. Evaluative measures will need to be used before, during, and after implementation of your action plan initiatives to assess the effectiveness of the initiatives.

Step 4: Communicate Action Plans and Deliverables

After you develop your action plans, you need to communicate the plans, deliverables, and expected outcomes. Those directly involved or affected will need to know their roles and responsibilities, as well as the timeframe for implementation. Action plans and goals should also be shared widely so that their transparency encourages further accountability and demonstrates the pharmacy-wide commitments being made in response to the survey results.

At this step it is important for senior pharmacy managers and leaders to understand that they are the primary owners of the change process and that success depends on their full commitment and support. Senior-level commitment to taking action must be strong; without buy-in from the top, including pharmacy leadership, improvement efforts are likely to fail.

Step 5: Implement Action Plans

Implementing action plans is one of the hardest steps. Taking action requires providing needed resources and support. It requires tracking quantitative and qualitative measures of progress and success that have already been identified. It requires publicly recognizing those individuals and units that take action to drive improvement. And it requires adjustments along the way.

This step is critical to improving patient safety culture. While communicating the survey results is important, taking action makes the real difference. However, as the Institute for Healthcare Improvement (IHI, 2015) suggests, actions do not have to be major, permanent changes. In fact, it is worthwhile to strive to implement easier, smaller changes that are likely to have a positive impact rather than big changes with unknown probability of success.

The "Plan-Do-Study-Act" cycle (Langley, et al., 1996) (Figure 7-1) is a pilot-study approach to change that involves developing a small-scale plan to test a proposed change (Plan), carrying out the plan (Do), observing and learning from the results (Study), and determining what changes should be made to the plan (Act). Implementation of action plans can occur on a small scale, within a single area, to examine impact and refine plans before rolling out the changes on a larger scale to other areas or community pharmacies.

Figure 7-1. Plan-Do-Study-Act Cycle
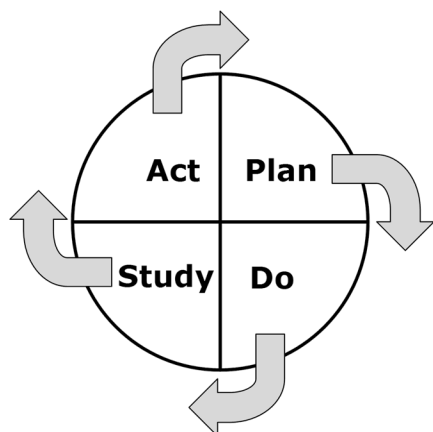
Step 6: Track Progress and Evaluate Impact

Use quantitative and qualitative measures to review progress and evaluate whether a specific change actually leads to improvement. Ensure that there is timely communication of progress toward action plans on a regular basis. If you determine that a change has worked, communicate that success to staff by telling them what was changed and that it was done in response to the safety culture survey results. Be sure to make the connection to the survey so that the next time the survey is administered, staff will know that it will be worthwhile to participate again because actions were taken based on the prior survey's results.

Alternatively, your evaluation may reveal that a change is not working as expected or has failed to reach its goals and will need to be modified or replaced by another approach. Before dropping the effort completely, try to determine why it failed and whether adjustments might be worth trying.

It is important not to reassess culture too frequently because lasting culture change will be slow and may take years. Frequent assessments of culture are likely to find temporary shifts or improvements that may come back down to baseline levels in the longer term if changes are not sustained. When planning to reassess culture, it is also very important to obtain high survey response rates. Otherwise, it will not be clear whether changes in survey results over time are due to true changes in attitudes or are the result of surveying different staff each time.

Step 7: Share What Works

In Step 6, you track measures to identify which changes result in improvement. Once your community pharmacy finds effective ways to address a particular area, the changes can be implemented on a broader scale to other community pharmacies. Be sure to share your successes with outside community pharmacies and health care systems as well.

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Notes: Description of Data Cleaning and Calculations

This section provides additional detail about how various statistics presented in this report were calculated.

Data Cleaning

Each participating community pharmacy submitted individual-level survey data. Once the data were submitted, we ran response frequencies on each pharmacy's data to look for out-of-range values, missing values, or other data anomalies. When we found data problems, we contacted community pharmacies and asked them to make corrections and resubmit their data. In addition, we sent each participating community pharmacy a copy of its data frequencies to verify that the dataset received was correct. Community pharmacies were not required to submit data for all of the background characteristic questions.

The data were also cleaned for straight-lined answers, which is when respondents give the same answer for both a positively worded item (e.g., In this pharmacy, we talk about ways to prevent mistakes from happening again) and a negatively worded item (e.g., We feel rushed when processing prescriptions) in the same section of the survey. Positively worded and negatively worded items are in sections B and C. When respondents supplied the same answers for all items in sections B or C, the items in those sections were set to missing because the sections had negatively worded items.

After this initial cleaning and before analyzing the data, we deleted respondents with missing values across sections A, B, C, and D . Respondents who supplied either "Don't know" answers or had missing answers to all items across sections A, B, C, and D were also deleted before analysis.

Community pharmacies were included in the database only if they had a numerator of at least 5 after this data cleaning step.

Response Rates

As part of the data submission process, community pharmacies were asked to provide their response rate numerator and denominator. Response rates were calculated using the formula below.

$$\text{Response Rate} = \frac{\text{Number of complete, returned surveys}}{\text{Number of surveys distributed} - \text{Ineligibles}}$$

Numerator = Number of complete, returned surveys. The numerator equals the number of cleaned individual survey records submitted to the database. It *excludes* surveys that were returned blank on all nondemographic survey items or deleted during data cleaning, but *includes* surveys where at least one nondemographic survey item was answered.

Denominator = Total number of surveys distributed minus ineligibles. Ineligibles include deceased individuals or those who were no longer employed at the community pharmacy during data collection.

Calculation of Percent Positive Scores

Most of the survey's items ask respondents to answer using 5-point response categories in terms of agreement (Strongly agree, Agree, Neither, Disagree, Strongly disagree) or frequency (Always, Most of the time, Sometimes, Rarely, Never). Five of the 11 patient safety culture composites, consisting of 16 items, use the frequency response option (*Communication Openness*; *Patient Counseling*; *Staffing, Work Pressure, and Pace; Communication About Prescriptions Across Shifts; and Communication About Mistakes*), while the other six composites use the agreement response option.

The three noncomposite items on Documenting Mistakes use a 5-point frequency scale ranging from "Never documented" to "Always documented" (Never documented, Rarely documented, Sometimes documented, Most of the time documented, Always documented). The Overall Rating on Patient Safety uses a 5-point scale ranging from "Poor" to "Excellent" (Poor, Fair, Good, Very good, Excellent).

Item-Level Percent Positive Response

Both positively worded items (e.g., "Staff are treated fairly when they make mistakes") and negatively worded items (e.g., "This pharmacy places more emphasis on sales than on patient safety") are included in the survey. Calculating the percent positive response on an item is different for positively and negatively worded items:

- **For positively worded items**, percent positive response is the combined percentage of respondents within a community pharmacy who answered "Strongly agree" or "Agree," or "Always" or "Most of the time," depending on the response categories used for the item.

  - For example, for the item "Staff are treated fairly when they make mistakes," if 50 percent of respondents within a community pharmacy responded *Strongly agree* and 25 percent responded *Agree,* the item-level percent positive response for that community pharmacy would be 50 percent + 25 percent = 75 percent positive.

- **For negatively worded items**, percent positive response is the combined percentage of respondents within a community pharmacy who answered "Strongly disagree" or "Disagree," or "Never" or "Rarely," because a *negative* answer on a negatively worded item indicates a *positive* response.

  - For example, for the item "This pharmacy places more emphasis on sales than on patient safety," if 60 percent of respondents within a community pharmacy responded S*trongly disagree* and 20 percent responded *Disagree,* the item-level percent positive response would be 80 percent (i.e., 80 percent of respondents *do not* believe that the pharmacy places more emphasis on sales than on patient safety).

Composite-Level Percent Positive Response

The survey's 36 items measure 11 areas or composites of patient safety culture, three items on documenting mistakes, and an overall rating of patient safety culture. The 11 patient safety

culture composites are composed of three or four survey items. Composite scores were calculated for each community pharmacy by averaging the percent positive response on the items within a composite. For example, for a three-item composite, if the item-level percent positive responses were 50 percent, 55 percent, and 60 percent, the community pharmacy's composite-level percent positive response would be the average of these three percentages, or 55 percent positive.

Item and Composite Percent Positive Scores

To calculate your community pharmacy's composite score, average the percentage of positive response to each item in the composite. Table N1 shows an example of computing a composite score for *Overall Perceptions of Patient Safety*:

1. This composite has three items. Two are positively worded (items C6 and C9) and one is negatively worded (item C3). Keep in mind that DISAGREEING with a negatively worded item indicates a POSITIVE response.
2. Calculate the percentage of positive responses at the item level (see Table N1).

Table N1. Example of Computing Item and Composite Percent Positive Scores

Four items measuring "Overall Perceptions of Patient Safety"	For positively worded items, count the # of "Strongly agree" or "Agree" responses	For negatively worded items, count the # of "Strongly disagree" or "Disagree" responses	Total # of responses to the item	Percent positive response on item
Item C6 - positively worded "This pharmacy is good at preventing mistakes"	110	NA*	240	110/240=46%
Item C9 - positively worded "The way we do things in this pharmacy reflects a strong focus on patient safety"	140	NA*	250	140/250= 56%
Item C3R - negatively worded "This pharmacy places more emphasis on sales than on patient safety"	NA*	125	260	125/260=48%
			Composite Score % Positive = (46% + 56% + 48%) / 3 = **50%**	

*NA = Not applicable

This example includes three items, with percent positive response scores of 46 percent, 56 percent, and 48 percent. Averaging these item-level percent positive scores results in a composite score of .50 or 50 percent on Overall Perceptions of Patient Safety. In this example, an average of about 50 percent of the respondents responded positively to the survey items in this composite.

Once you calculate your community pharmacy's percent positive response for each of the 11 patient safety culture composites, you can compare your results with the composite-level results from the 255 database community pharmacies.

Percentiles

Percentiles were computed using the SAS® software default method. The first step in this procedure is to rank order the percent positive scores from all the participating community pharmacies, from lowest to highest. The next step is to multiply the number of community pharmacies (n) by the percentile of interest (p), which in our case would be the 10th, 25th, 50th, 75th, or 90th percentile.

For example, to calculate the 10th percentile, one would multiply 255 (the total number of community pharmacies) by .10 (10th percentile). The product of n x p is equal to "j+g" where "j" is the integer and "g" is the number after the decimal. If "g" equals 0, the percentile is equal to the percent positive value of the community pharmacy in the jth position plus the percent positive value of the community pharmacy in the jth +1 position, divided by 2 $[(X_{(j)} + X_{(j+1)})/2]$. If "g" is not equal to 0, the percentile is equal to the percent positive value of the community pharmacy in the jth +1 position.

The following examples show how the 10th and 50th percentiles would be computed using a sample of percent positive scores from 12 community pharmacies (using fake data shown in Table N2). First, the percent positive scores are sorted from low to high on Composite "A."

Table N2. Data Table for Example of How To Compute Percentiles

Community Pharmacy	Composite "A" % Positive Score	
1	33%	
2	48%	←10th percentile score = 48%
3	52%	
4	60%	
5	63%	
6	64%	
7	66%	←50th percentile score = 65%
8	70%	
9	72%	
10	75%	
11	75%	
12	78%	

10th percentile

1. For the 10th percentile, we would first multiply the number of community pharmacies by .10:

   (n x p = 12 x .10 = 1.2).

2. The product of n x p = 1.2, where "j" = 1 (the integer) and "g" = 2 (the decimal). Since "g" is *not* equal to 0, the 10th percentile score is equal to the percent positive value of the community pharmacy in the jth +1 position:

   a. "j" equals 1.
   b. The 10th percentile equals the value for the community pharmacy in the 2nd position = 48 percent.

50th percentile

1. For the 50th percentile, we would first multiply the number of community pharmacies by .50:

   (n x p = 12 x .50 = 6.0).

2. The product of n x p = 6.0, where "j" = 6 and "g" = 0. Since "g" = 0, the 50th percentile score is equal to the percent positive value of the community pharmacy in the jth position plus the percent positive value of the community pharmacy in the jth +1 position, divided by 2:

   a. "j" equals 6.
   b. The 50th percentile equals the average of the community pharmacies in the 6th and 7th positions (64%+66%)/2 = 65.