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Speaking Up for Safety—It's Not Simple

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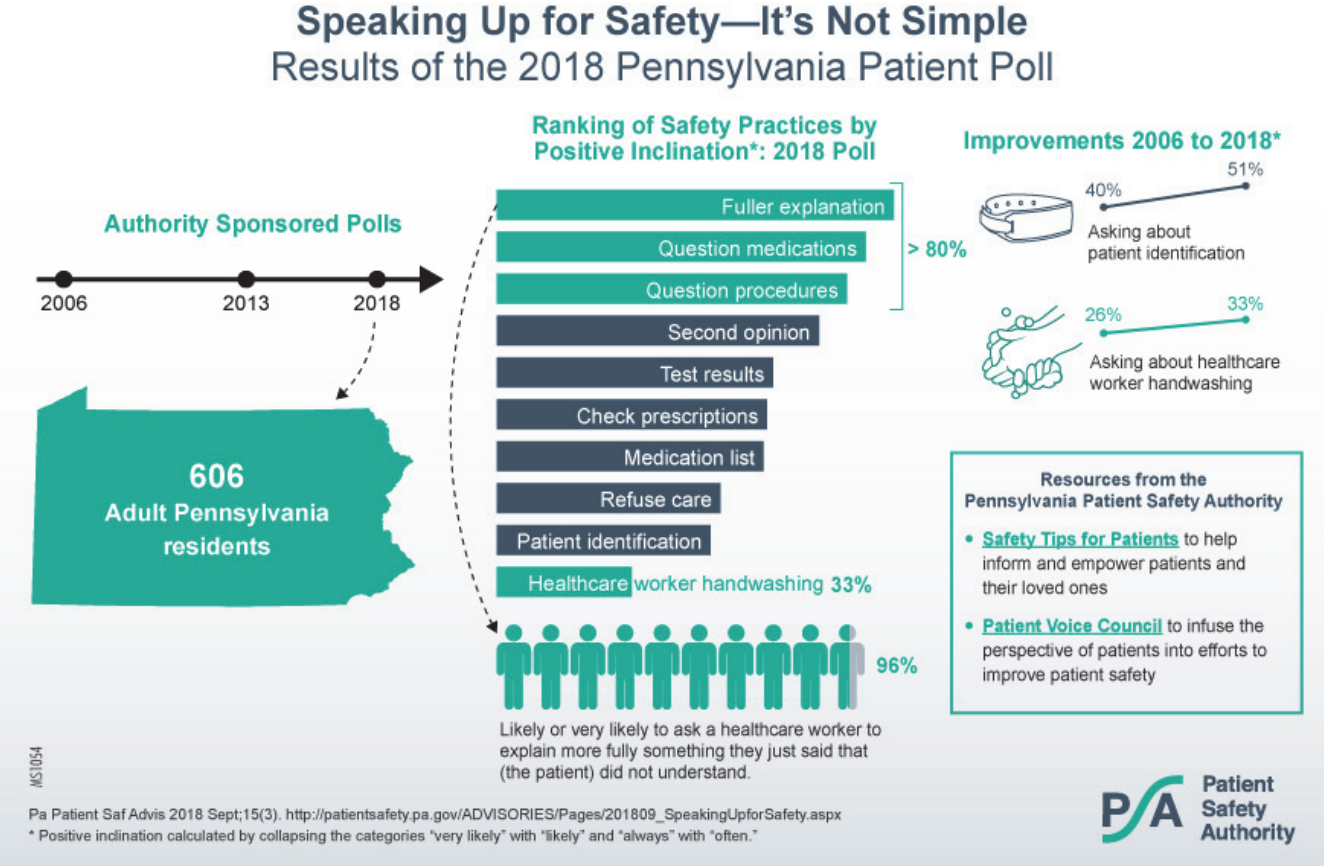
Abstract



Patient education, engagement, and empowerment have been at the core of many organizations' efforts to make healthcare safer. To measure and focus such efforts, the Pennsylvania Patient Safety Authority developed a patient poll about basic safety practices, such as asking about healthcare worker handwashing. The poll was administered in 2006, 2013, and, most recently, February through April 2018. Results from 2018 remain consistent with the previous two iterations: high reported likelihood to ask questions to gain understanding and low reported likelihood to question

potential safety breaches. In 2018, 96% of patients reported positive inclination towards asking for a fuller explanation, and just 33% reported positive inclination towards asking a healthcare worker if they washed their hands. This gap represents an opportunity for future safety work in Pennsylvania and beyond.

Introduction

Empowering patients to be advocates for patient safety has been a focus of countless educational campaigns and interventions. From regulatory bodies to grassroots advocacy groups, international agencies to hospitals, patient empowerment has become a principal component of mission statements, strategic plans, and calls to action. The Pennsylvania Patient Safety Authority is one such organization, established in 2002 by the Medical Care Availability and Reduction of Error Act (known as MCARE).[1] The Authority joins organizations such as the Agency for Healthcare Research and Quality, Joint Commission, and the Centers for Medicare and Medicaid Services in promoting patient engagement in safe healthcare through education, access to resources, and incorporation of the patient voice.[2-5]

To evaluate engagement of Pennsylvania patients in common safety practices, the Pennsylvania Patient Safety Authority developed a poll, which was administered in 2006, 2013, and most recently, February through April 2018.[6,7] Analysis of the poll results will inform future patient safety efforts in Pennsylvania and beyond.

Methods

The Center for Survey Research, Penn State Harrisburg conducted a random telephone poll of 606 adults in Pennsylvania from February 19, 2018, through April 19, 2018. Similar to the previous polls, interviews consisted of basic demographic questions and the following questions measuring engagement in select patient safety practices:

In regard to your healthcare, how likely are you to—

1. ask a healthcare worker if they have washed their hands?
2. ask a healthcare worker to confirm your identity before performing a procedure?
3. seek a second opinion regarding an important healthcare decision?
4. ask a healthcare worker to explain more fully something they just said that you don't understand?

How often do you engage in the following practices related to your healthcare?

5. Check that you received the right drug and strength before leaving the pharmacy.
6. Take a list of all the medications you are currently taking when going to the doctor.
7. Call your doctor when you have a medical test ordered, but no one calls you with the results.

If you were a patient in a hospital, how likely are you to—

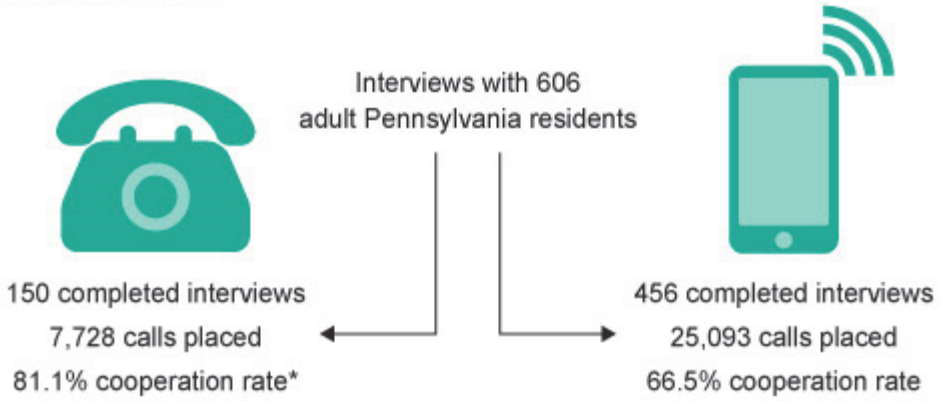
8. question the reason for a procedure before it is performed?
9. question medications or pills if you don't recognize them and never took this medication in the past?
10. refuse care, such as x-ray or drawing blood, that you were not told about by your doctor or nurse?

Three new questions, focused on patient-provider communication, were added to the 2018 poll, and will be addressed in a future *Advisory* article.

The sample included both landline and cell phone numbers generated using a random-digit-dial sampling procedure to ensure equal probability of selection. An additional randomized respondent selection technique was used on landline calls to ensure equal probability of selection for all adults within each sampled household. Given the portability of mobile devices, all cell phone calls were screened to ensure participant residence in Pennsylvania.[8]

The 606 completed interviews consisted of 25% landline numbers and 75% cell phone numbers. The overall survey cooperation rate, adjusted for frame overlap, was 71.6%. The margin of error for the poll at a 95% confidence interval is plus or minus four percentage points.[8]

Figure 1. Sampling Statistics



Source: Center for Survey Research, Penn State Harrisburg. Spring 2018 Penn State poll: report of methods. Submitted to: Pennsylvania Patient Safety Authority. Middletown (PA): Center for Survey Research, Penn State Harrisburg; 2018 Apr. 21 p.

* Cooperation rate calculated by the Center for Survey Research, Penn State Harrisburg using the American Association of Publication Opinion Research's Cooperation Rate 3 (COOP 3) formula, which divides the number of completed interviews by the sum of the number of completed interviews, the number of partially completed interviews, and the number of respondents who refused to participate.

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To ensure the poll results were representative, the data were weighted as a function of respondent age and gender using Pennsylvania population estimates collected by the U.S. Census Bureau on July 1, 2016.[8] The analysis that follows uses this weighted data.

Differences in patient engagement were evaluated using results of the 2018, 2013, and 2006 polls. Statistical measures included the Goodman and Kruskal gamma (for the association between two ordinal variables), chi-squared test for independence (for the association between two categorical variables), and the Wilson score method without continuity correction (for the computation of confidence interval around a single-group proportion).[9-11] For select analyses, a two-level response variable was used by collapsing the categories "very likely" with "likely" and "always" with "often." Similarly, "somewhat likely" and "not likely at all" were collapsed as were "sometimes" and "never."

In the 2018 poll, the response choice "does not apply to me" was added to the three questions measuring perceived frequency of engagement in select safety practices (i.e., checking prescriptions, bringing a medication list, and calling about test results); analysis of these three questions was therefore limited to 2018 only.

Analysts conducted a review of the literature on patient engagement in safety to provide context to the poll results.

Results

Table 1 shows the weighted respondent demographics for the 2018 poll.

Table 1. Weighted Demographic Distribution of 606 Survey Participants in the 2018 Penn State Poll*

Variable	Number	Percentage
Gender		
Male	293	48.4
Female	313	51.6
Age category		
18 through 34 years	172	28.3
35 through 64 years	301	49.7
65 years of age or older	133	22.0
Race		
White alone	504	86.0
Black, African American alone	36	6.1
Some other race (includes 2 or more races)	47	7.9
Education		
High school diploma/GED or less	142	23.5
Some college (includes two-year degree, technical degree, associate's degree)	227	37.6
College degree (four-year college graduate)	116	19.3
Graduate work	118	19.6
Household income		
Less than $30,000	100	19.9
$30,000 to $59,999	140	28.1
$60,000 to $99,999	129	25.9
$100,000 or more	130	26.1

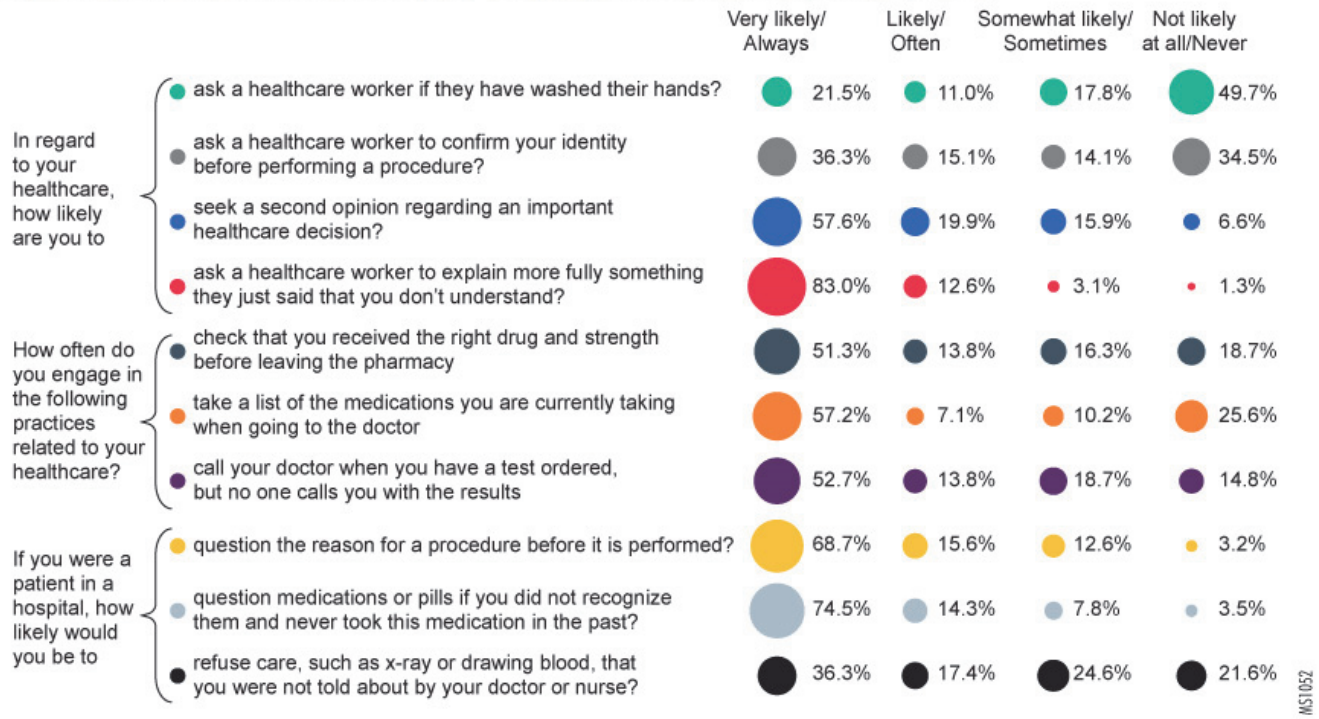
Region (Counties)		
Northwest	62	10.3
Northcentral	29	4.8
Northeast	70	11.6
Southwest	122	20.1
Southcentral	101	16.6
Southeast	222	36.6
County density		
Urban	423	69.7
Rural	183	30.3

Source: Center for Survey Research, Penn State Harrisburg. Spring 2018 Penn State poll: report of methods. Submitted to: Pennsylvania Patient Safety Authority. Middletown (PA): Center for Survey Research, Penn State Harrisburg; 2018 Apr. 21 p.

* Respondent numbers may not total 606 because of rounding, as well as the exclusion of "don't know" and "declined to answer" responses.

Figure 2 shows the results of the 2018 poll.

Figure 2. Reported Likelihood or Perceived Frequency of Engaging in Selected Patient Safety Practices, 2018 Poll



The relationships between demographic variables and respondents' engagement in the 10 safety practices are displayed in Table 2. Gender accounted for statistical differences in the highest number of safety practices, with females being more likely than males to engage in five practices (i.e., healthcare worker handwashing, patient identification, fuller explanation, medication list, questioning procedures).

Table 2. Relationship Between Demographic Variables and Respondents' Likelihood of Engaging in Safety Practices

Safety Practice Topic	Gender	Age	Race	Education	Income	Region	County Density
Healthcare worker handwashing	Females more likely (p = 0.003)	n.s.	Blacks, African Americans alone, more likely than whites (p = 0.002)	n.s.	n.s.	NC more likely than SC (p = 0.003)	n.s.
Patient identification	Females more likely (p = 0.002)	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Second opinion	n.s.	n.s.	n.s.	n.s.	n.s.	NC more likely than SC (p = 0.045)	n.s.
Fuller explanation	Females more likely (p = 0.029)	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Check prescriptions	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Medication list	Females more likely (p = 0.041)	Older more likely (p = 0.001)	Blacks, African Americans alone, less likely than whites (p = 0.003) or than Other (p = 0.004)	n.s.	n.s.	n.s.	Rural more likely than urban (p = 0.033)
Test results	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Question procedures	Females more likely (p = 0.028)	n.s.	n.s.	Higher education more likely (p = 0.043)	n.s.	n.s.	n.s.
Question medications	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
Refuse care	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.

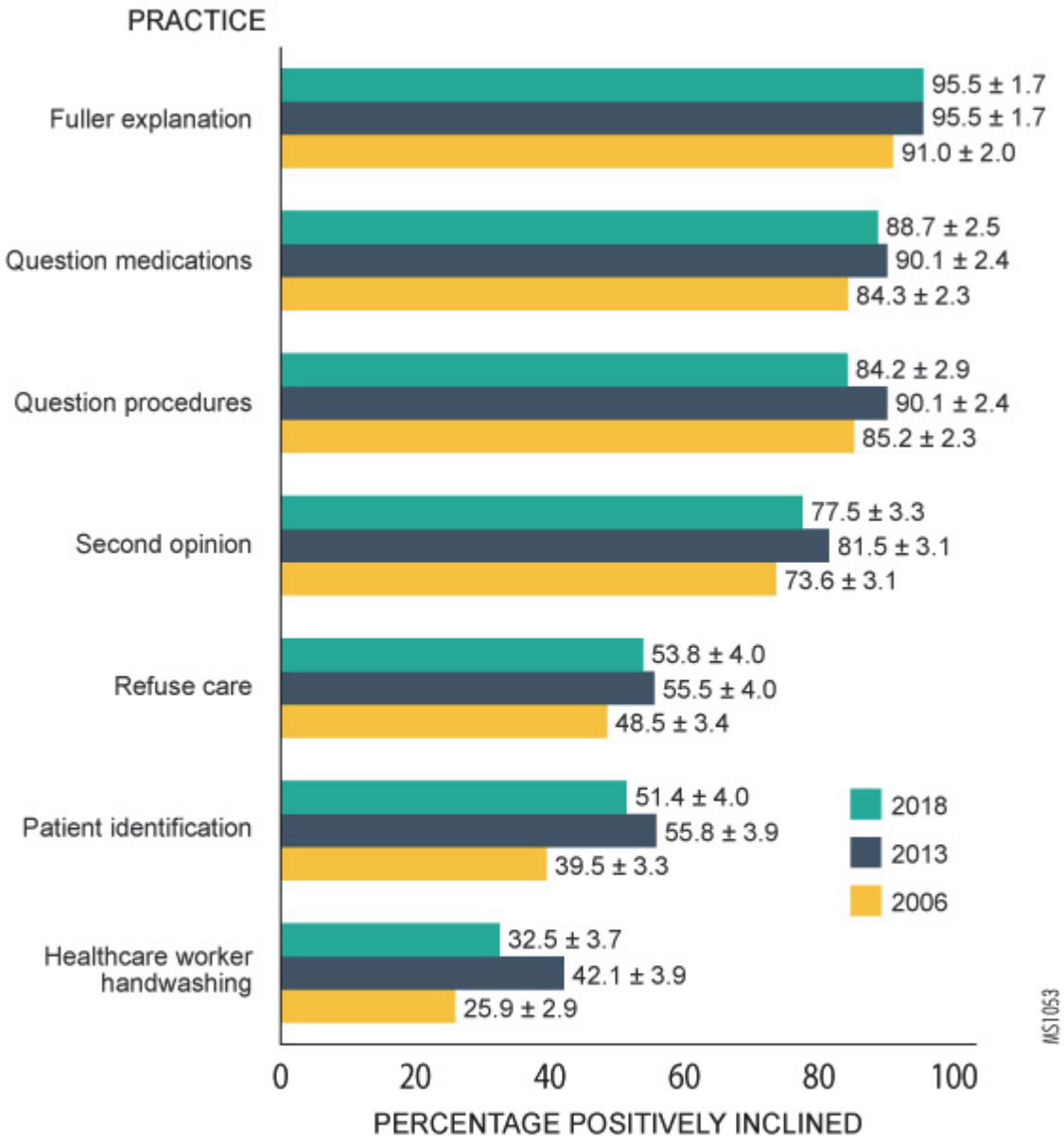
Note: The Goodman and Kruskal gamma was used to measure the association between poll results and the demographic variables gender, age, education, income, and county density. The chi-squared test for independence was used to measure the association between poll results (represented as two-level response variables) and the demographic variables race and region.

Source data from: Center for Survey Research, Penn State Harrisburg. Spring 2018 Penn State poll: report of methods. Submitted to: Pennsylvania Patient Safety Authority. Middletown (PA): Center for Survey Research, Penn State Harrisburg; 2018 Apr. 21 p.

NC, Northcentral; n.s., not statistically significant ($p \geq 0.05$); SC, Southcentral.

Figure 3 shows respondents' positive inclination toward the safety practices in the three iterations of the poll.

Figure 3. Patient Safety Practices: Percentage of Participants Who Were Positively Inclined*



Notes: Confidence intervals around single-group proportions (right) were calculated by the Wilson score method without continuity correction.

In the 2018 poll, the response choice "does not apply to me" was added to three questions (i.e., checking prescriptions, bringing a medication list, and calling about test results); analysis of these three questions was excluded from between-year comparisons and they are excluded from this figure.

* Positive inclination was calculated by collapsing the categories "very likely" and "likely."

Comparing the poll results from 2006 to 2018, statistically significant improvements were observed in the likelihood of patients asking about healthcare-worker handwashing and patient identification. Comparing the poll results from 2013 to 2018, statistically significant declines were observed in the likelihood of engagement in healthcare-worker handwashing and questioning procedures.

Discussion

As was observed in the previous two polls, reported engagement varied among the 10 safety practices in 2018, but

the ranking of the safety practices by positive inclination remained relatively consistent.

Respondents reported being most inclined toward asking for a fuller explanation, questioning medications, and questioning procedures. More than 80% of respondents reported being positively inclined to engage in each of these three safety practices, which also ranked highest in the 2006 and 2013 polls. These safety practices all relate to health literacy and seeking understanding rather than pointing out safety breaches. This propensity towards asking clarifying questions rather than challenging or "actively" participating in care (e.g., helping with site marking) has been a consistent theme in the literature.[12-15]

The safety practice respondents reported being least inclined toward in the 2018 poll was asking about healthcare worker handwashing; just one in three respondents reported being positively inclined. This safety practice also ranked lowest in the 2006 and 2013 polls. Despite widespread publicity this fundamental safety practice has received, social and personal barriers—such as not wanting to damage the patient-provider relationship or be labeled as "difficult"—may prevail. These barriers may also affect the other consistently low-ranking safety practices: asking about patient identification and refusing care.

The ubiquity of alcohol-based hand rub could also make asking a healthcare worker if he or she has washed their hands obsolete; for example, patients can see staff use the dispenser or continue to cleanse their hands as they enter the room. After-the-fact patient surveys and more novel safety hotlines and patient-led patient safety reporting systems may augment this reluctance to speak up at the point of care but, unfortunately, not mitigate potential harm that has already occurred.[16,17]

Respondents' willingness to engage in many of the practices declined from 2013 to 2018. This lack of improvement in the poll results was unexpected, but the positive gains since 2006 were nonetheless encouraging. Extrinsic factors such as politics, culture, technology, and social media could all influence these trends. The evolution of healthcare delivery may make some of the safety practices in this poll no longer reflective of reality, such as the availability of patient portals to access medication lists and test results or use of barcode scanners for patient identification. The impact of newer phenomena, such as the electronic documentation burden and virtual healthcare, will be interesting to evaluate in the future. Regardless of the way healthcare is delivered, the fundamental principles of handwashing, patient identification, and health literacy appear to be timeless and thus worthy of continued promotion.

Limitations

The ambiguous wording of some poll questions creates the possibility that interpretation differed among respondents. The theoretical nature of the poll questions and the social desirability of certain responses might have caused respondents to misrepresent how they would actually behave if faced with the scenario described.

Conclusion

The results of the 2018 Pennsylvania patient poll align with that of the 2006 and 2013 iterations: high reported engagement in practices to seek understanding and low reported engagement in practices that question potential safety breaches. Asking about healthcare worker handwashing remains the most significant opportunity for awareness, empowerment, and innovation.

Acknowledgments

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Notes

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Supplemental Material

The Pennsylvania Patient Safety Authority maintains a repository of Safety Tips for Patients (/PATIENTSCONSUMERS/Pages/PatientConsumerTips.aspx) to help inform and empower patients and their loved ones.

The Authority also sponsors a Patient Voice Council (/PATIENTSCONSUMERS/Pages/Home.aspx) to infuse the perspective of patients into its efforts to improve patient safety. Individuals interested in participating may inquire online.