

*FRONTLINE NURSES' PERCEPTIONS
OF THE STATE OF PATIENT SAFETY*

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INTRODUCTION

The safety of the nation's healthcare system has become front and center in national discussions. Headlines about avoidable medical errors are commonplace, prompting legislative and regulatory action. National organizations have launched campaigns to improve safety, such as the Institute for Healthcare Improvement's (IHI) 100,000 Lives Campaign. The Institute of Medicine's 1999 report on medical errors, "To Err is Human: Building a Safer Health System," helped to fuel this patient safety movement. The report estimated that up to 98,000 patients die each year from medical errors – a shocking statistic – and identified more than 7,000 of those deaths as specifically due to medication errors.

The issue of medication safety is of vital importance to the frontline nurse: the registered nurse who delivers bedside care. The nurse plays a critical role in preventing medication errors, often acting as the safety net for the patient. As such, frontline nurses have a real-world view into patient and medication safety practices in their organizations.

To capture the unique perspective of the frontline nurse, McKesson commissioned Harris Interactive to conduct a national research study to better understand nurses' perceptions of patient safety and as a subset, medication safety. The participants were unaware that McKesson sponsored the research, and no disclosure of participant or organization identity has been made to McKesson.

METHODOLOGY

In spring 2005, McKesson commissioned Harris Interactive to conduct a national research study in order to gain a better understanding of frontline nurses' attitudes toward patient safety and medication safety.

The online survey was conducted in April 2005 with 216 frontline registered nurses having at least five years' experience. All respondents currently provide direct patient care in a U.S. hospital with 125 or more beds. The nurses work in general medical, general surgical, intensive care, critical care or step-down units. Forty-one percent have at least 20 years of experience, and 59 percent are 45 or older. Twenty-four percent work in hospitals with 125 to 200 beds, 45 percent in hospitals with 201 to 400 beds, and 31 percent in hospitals with more than 400 beds.

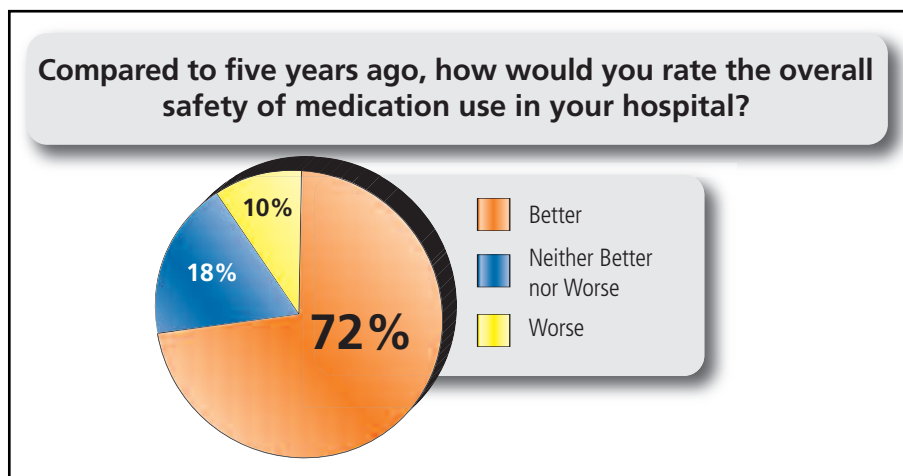
With a probability sample of this size, there is generally a 90 percent certainty that the results have a sampling error of plus or minus 5 percentage points of what they would be if the entire population of registered nurses with at least five years of experience who work in direct patient care at U.S. acute-care hospitals with 125 or more beds had been polled. There are other possible sources of error in all polls or surveys that are probably more serious than theoretical calculations of sampling error. They include refusals to be interviewed (non-response), question wording and question order, interviewer bias, weighting by demographic control data, and screening. It is impossible to quantify the errors that may result from these factors.

MAJOR FINDINGS

1. *Frontline nurses report improvements in medication safety in the five years since the release of the Institute of Medicine report.*

A majority of respondents (72 percent) reported that the overall safety of medication use in their hospital is better than it was five years ago. Eighteen percent report no change, while only 10 percent felt that medication safety got worse over the past five years. (See Figure 1)

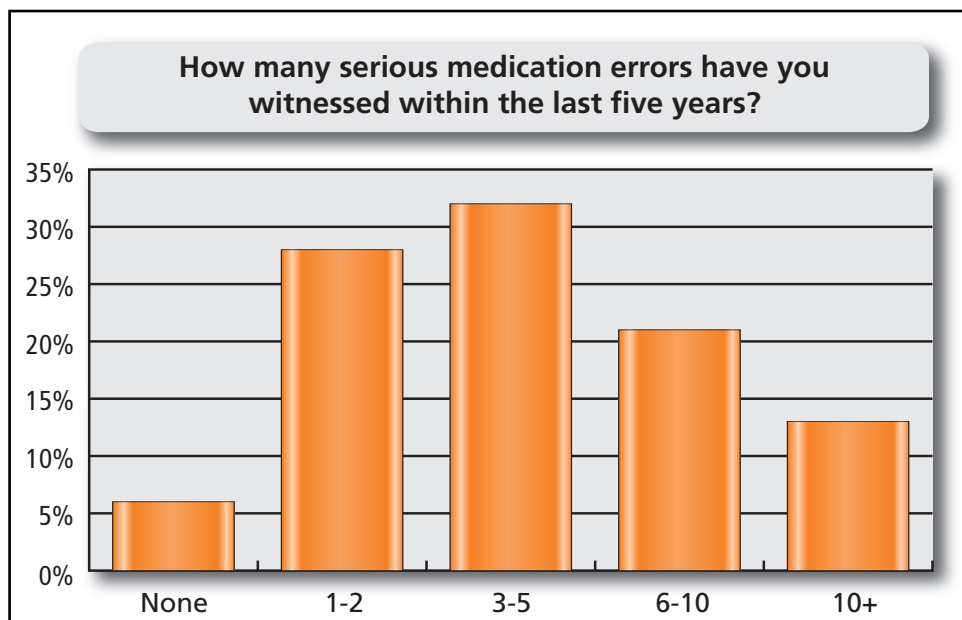
FIGURE 1



2. *Despite improvements during the past five years, medication safety is still a concern for frontline nurses.*

Despite perceived improvements, 94 percent of respondents had witnessed one or more serious medication errors within the past five years. Twenty-eight percent witnessed one or two errors, 32 percent witnessed three to five errors, 21 percent witnessed six to 10 errors, and 13 percent witnessed more than 10 serious medication errors within the last five years. (See Figure 2)

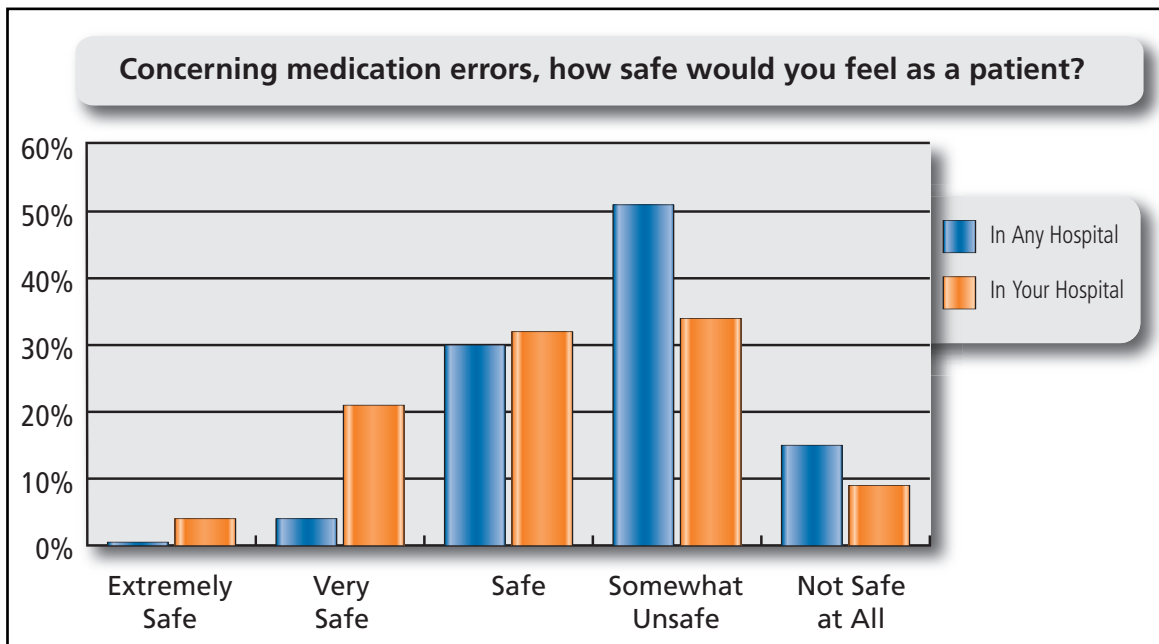
FIGURE 2



According to 88 percent of respondents, there are particular times when medication errors are more likely to occur. Seventy-two percent of these respondents reported that medication errors were more likely to occur when they were unfamiliar with the medication being administered. Other times identified as prime for errors include when transferring a patient from one unit to another (53 percent) and during shift change (52 percent).

Concerning medication errors, when asked how safe they would feel as a patient in any hospital, 34 percent of the nurses said they would feel safe (4 percent “very safe,” 30 percent “safe”), with the majority of respondents (66 percent) stating they would feel somewhat unsafe (51 percent) or not safe at all (15 percent). When asked the same question about their own hospital, however, nurses felt more comfortable. Overall, 57 percent of nurses reported they would feel safe (4 percent “extremely safe,” 21 percent “very safe,” 32 percent “safe”) concerning medication errors in their own hospitals. (See Figure 3)

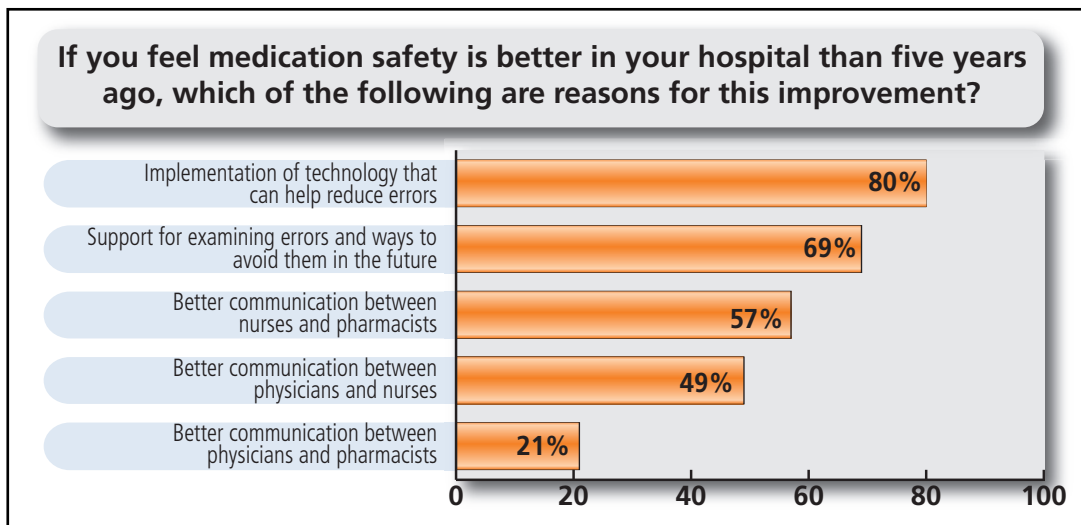
FIGURE 3



3. *Technology is viewed by nurses as positively affecting patient safety and is cited as being the key reason for improvements in medication safety.*

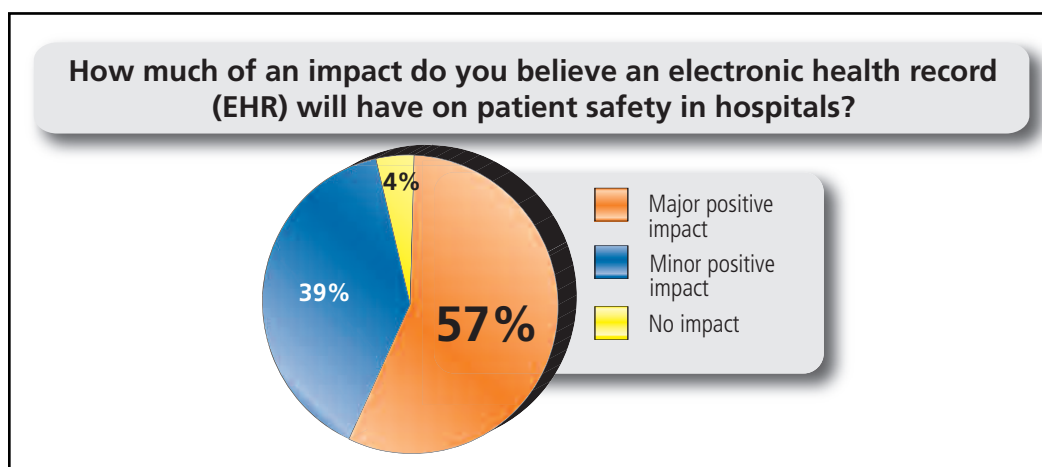
Of the 72 percent of nurses who reported that they thought medication safety had improved in their hospital during the past five years, 80 percent cited implementation of technology that helps reduce medication errors as a reason for this improvement. Other major reasons cited include an environment that supports the examination of errors (69 percent), better communication between nurses and pharmacists (57 percent), and better communication between nurses and doctors (49 percent). (See Figure 4)

FIGURE 4



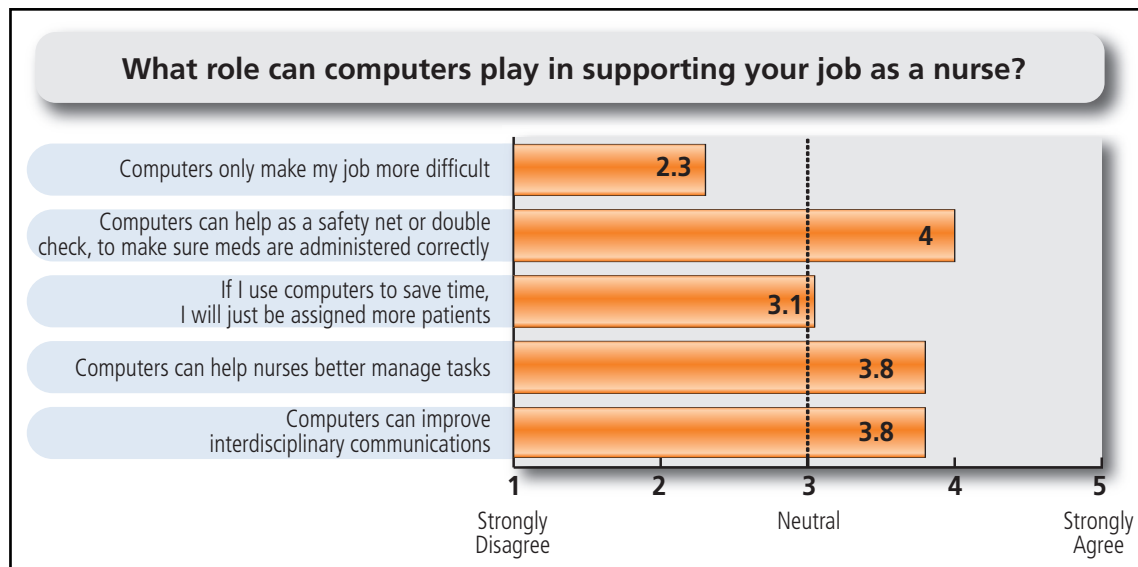
Nearly all respondents (96 percent) felt that an electronic health record (EHR) would improve patient safety, with 57 percent indicating that an EHR would have a major positive impact on patient safety. (See Figure 5)

FIGURE 5



Nurses also perceive computers and technology as playing a largely positive role in their jobs as nurses, first as a safety net or “double check” to make sure medications are administered correctly, followed by the ability to better manage tasks and improve interdisciplinary communication. (See Figure 6)

FIGURE 6



Additionally, when asked to select one aspect of their job that they would change if they could (not including improving the staff-to-patient ratio), 36 percent of nurses selected “automatic notification of significant patient issues,” while 33 percent selected “improve interdisciplinary communications.”

4. *Nurses report limited use of technology that can improve patient safety.*

Despite the recognition of the benefits of technology in improving patient and medication safety, nurses reported limited use of information technology designed to improve patient safety. Automated medication dispensing cabinets, by far the most familiar technology (used by 70 percent of respondents), were also rated highest for their ability to help improve patient safety (5.7 on a scale of 1 to 7). Bar-code medication administration rated a 5.6; however, only 23 percent of respondents had used it, followed by electronic alerts and reminders (5.3) and online documentation at the point of care (5.1), used by only 22 percent and 32 percent, respectively. (See Table 1)

TABLE 1

| Use of Technology by Frontline Nurses and Perceptions of Patient Safety Value | | |
|---|--|--|
| Technology | Percentage of respondents who said they have used the technology | Respondents' perception of technology value for improving patient safety <small>(1=no impact on patient safety, 7=major impact on patient safety)</small> |
| Online documentation at the nursing station | 43% | 4.5 |
| Online documentation at the point of care | 32% | 5.1 |
| Bar-coded medication administration | 23% | 5.6 |
| Automated medication dispensing cabinets | 70% | 5.7 |
| Electronic reminders and alerts | 22% | 5.3 |
| Electronic "plan of care" tool | 36% | 4.0 |

5. *Documentation is the single most time-consuming task that diverts nurses from direct patient care. Nurses struggle with capturing documentation at the point of care.*

Documentation requires time that nurses cannot spend with patients and was cited as the primary reason for working overtime. Fifty-three percent of the nurses reported working overtime, with the majority working between one and 10 overtime hours on average per week. Of those nurses regularly working overtime, 69 percent identified documentation as the primary cause.

Forty-seven percent of respondents reported that capturing complete documentation at the point of care was difficult. When asked what area of documentation computers could help with most, admission histories (81 percent), discharge and transfer documentation (79 percent), and medication administration (78 percent) were cited most frequently. Of less interest, but still noteworthy in how computers could help, were routine assessments (73 percent) and planning patient care (59 percent). Forty-six percent of nurses also felt that electronic documentation offers better protection from litigation.

6. *Nurses perceive the nursing shortage to be a key barrier to improving patient safety. Improved staff-to-patient ratios are seen as critical to improving patient safety. Nurses believe that computer systems can help them manage the work of LPNs and other practitioners.*

When asked to rank the top three barriers to improving safety, 71 percent of respondents ranked the nursing shortage first, followed by lack of a team approach, lack of hospital management commitment and lack of access to clinical information. When asked what nursing management can do to improve patient safety, 56 percent cited improving the staff-to-patient ratio. Of these respondents, a significantly higher percentage worked in a general medical unit versus a general surgical unit, intensive-care/critical-care or step-down unit.

Other suggestions for improving patient safety included clearly written or computerized orders (14 percent), more and better equipment (13 percent), better communications with staff (12 percent), education on new medications (10 percent), and maintaining a qualified, well-trained staff (10 percent).

The nursing shortage has resulted in an increasing number of LPNs and nurse aides providing care. Eighty-one percent of respondents felt that this was putting a bigger burden on them as RNs to check other people's work. Of these respondents, 51 percent felt that computer systems that could capture patient information, generate alerts automatically and manage tasks would help them oversee the work of lower-skilled aides and LPNs who are making up a larger portion of the workforce.

CONCLUSION

While this survey finds that frontline nurses believe that medication safety has improved in the five years since the IOM report, it is clear that much progress is still required.

Widespread use of proven technology to prevent medication errors still remains remarkably low, with nurses reporting that they still work in a paper world, for the most part. Contrary to common reports that frontline nurses are averse to using new technologies, an overwhelming majority of nurses who believed their hospitals are safer now than they were five years ago credited technology as a reason for that improvement. This was followed by support for examining errors and finding ways to avoid them in the future. Even nurses with limited exposure to clinical systems realized the value of technology to improve patient safety, and they were aware of the technologies that could help them deliver safer care more effectively and efficiently.

Nurses overwhelmingly believed that unfamiliarity with a medication increases the risk of medication errors. It is clear that hospitals must have effective processes for transferring medication knowledge to frontline nurses, intuitive information readily available at the point of care to assist nurses when administering unfamiliar medications, and safeguards to help ensure proper administration of medications.

Other key times nurses felt there was an increased likelihood of medication errors included shift changes and transfers to other units. This finding supports the consistent theme across the responses of the need for improved interdisciplinary communications and automatic notification of critical information.

Not surprisingly, the nursing shortage and its impact on the staff-to-patient ratio are overwhelming concerns to frontline nurses. Currently, several states have legislative attempts to set mandatory staff-to-patient ratios. These actions, however, do not take into account that the current shortage of 150,000 nurses is estimated to reach upwards of 800,000 by 2020, according to the U.S. Department of Health and Human Services. This complex issue must be addressed from multiple avenues: workforce development, education and cultural contexts, to name just a few.

As healthcare organizations develop patient safety strategies, it is vital to understand the concerns and opportunities from the frontline nurse perspective. This study represents a sector of the industry that is essential to the care delivery process and clearly demonstrates that frontline nurses believe medication safety improvements must be addressed on multiple fronts in order to succeed. Issues of workforce development must also be addressed, along with process changes and the creation of a non-punitive culture of safety.

HOW TO CITE THIS STUDY

Individuals are encouraged to cite this report and any accompanying graphics in printed matter, publications or any other medium, as long as the information is attributed to the 2005 McKesson Survey of Frontline Nurses' Perceptions of the State of Patient Safety conducted by Harris Interactive.

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