Implementing a Quality Improvement Process to Track Errors at a Rural Federally Qualified Health Center Pharmacy

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NORTH COUNTRY HealthCare

COLORADO PLATEAU
COMMUNITY-BASED PHARMACY RESIDENCY
AT NORTH COUNTRY HEALTHCARE

BACKGROUND

Medication errors in the community pharmacy setting have the potential to occur in any step of the medication use process (e.g. prescribing, transcribing, labeling, dispensing, administration, etc.)[1,2]. The most common medication dispensing errors are incorrect medication, doses, and directions [2,3]. A national observational study completed in 2003 at 59 randomly selected community pharmacies estimated that four dispensing errors occur per day in a typical pharmacy filling 250 prescriptions daily [4]. Human error is one of the most common causes of medication errors and error reporting helps provide opportunities for quality improvement (QI) of processes within a pharmacy and a healthcare system [2].

North Country HealthCare (NCHC) is a federally qualified health center with three 340B pharmacies in northern Arizona. There was not a consistent process amongst the pharmacists at NCHC for reporting processing errors versus just fixing the error themselves. To improve this process for patient safety, a quality improvement (QI) project was initiated utilizing the pharmacy's prescription software.

PRIMARY OBJECTIVE

To create a sustainable process for tracking processing errors with reporting capabilities to relay back to the pharmacy team.

METHODS

Study Design: Continuous Quality Improvement (CQI)
Study Period: August 2022 - November 2022

The pharmacy software has built-in QI tracking capabilities called the problem queue (PQ). There are several categories within the pharmacy software PQ for reporting processing errors. To focus on creating a sustainable process of error reporting, QI cycles were focused on two error reporting categories, referrals and last office visit (LOV). Data was collected throughout the process. Periodically, processing error data was shared with the pharmacy team for review in a blinded manner. The process for error reporting was modified over time to create an optimized pharmacy procedure.

METHODS, continued

First Iteration	Second Iteration	Third Iteration
This project began by studying current processing error reporting practices to obtain an idea of methods in the pharmacy.	The next phase consisted of surveying the pharmacy team to gain perceptions of the PQ and influence areas of error focus. One pharmacist began manually tracking how many processing errors they were witnessing per day without directly reporting error to the PQ.	Based on feedback from the pharmacy staff, the pharmacy software was updated to include significant or common error categories within the pharmacy software's PQ.

Fourth Iteration	Fifth Iteration
Once a plan was established for areas of focus, test runs were conducted to evaluate and update available reports. One pharmacist began utilizing the PQ in the pharmacy software to report when a referral or LOV was missing.	Additional pharmacists were added on a weekly basis to start sending prescriptions missing referrals or LOVs to the PQ. After 6 weeks, all pharmacists at two pharmacy locations were formally asked to start utilizing the PQ to track referrals and LOVs.

DATA

Referrals and LOVs Reported in Problem Queue
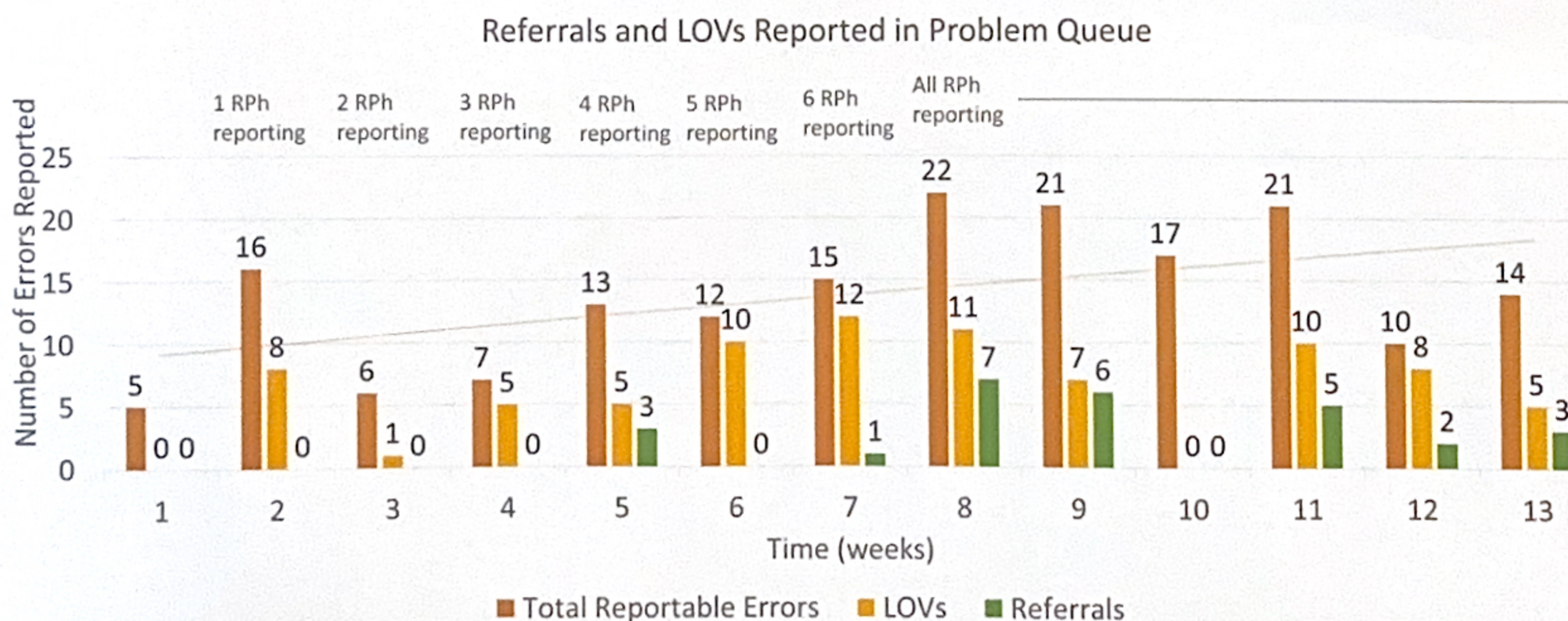
DISCLOSURE & REFERENCES

The authors of this presentation have nothing to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.
1. Campbell PJ, Patel M, Martin JR, et al. Systematic review and meta-analysis of community pharmacy error rates in the USA: 1993-2015. BMJ Open Qual. 2018;7(4):e000193. Published 2018 Oct 2. doi:10.1136/bmjoq-2017-000193.
2. Li C, Marquez K. Medication Errors in Retail Pharmacies: Wrong Patient, Wrong Instructions. PSNet 2021. https://psnet.ahrq.gov/web-mm/medication-errors-retail-pharmacies-wrong-patient-wrong-instructions.
3. Pervanas HC, Revell N, Alotaibi AF. Evaluation of Medication Errors in Community Pharmacy Settings. J Pharm Technol. 2016 Apr;32(2):71-74.
4. Flynn EA, Barker KN, Carnahan BJ. National observational study of prescription dispensing accuracy and safety in 50 pharmacies. J Am Pharm Assoc (Wash). 2003 Mar-Apr;43(2):191-200. doi: 10.1331/108658003321480731. PMID: 12688437.

RESULTS

Preliminary Pharmacy Staff Survey Results
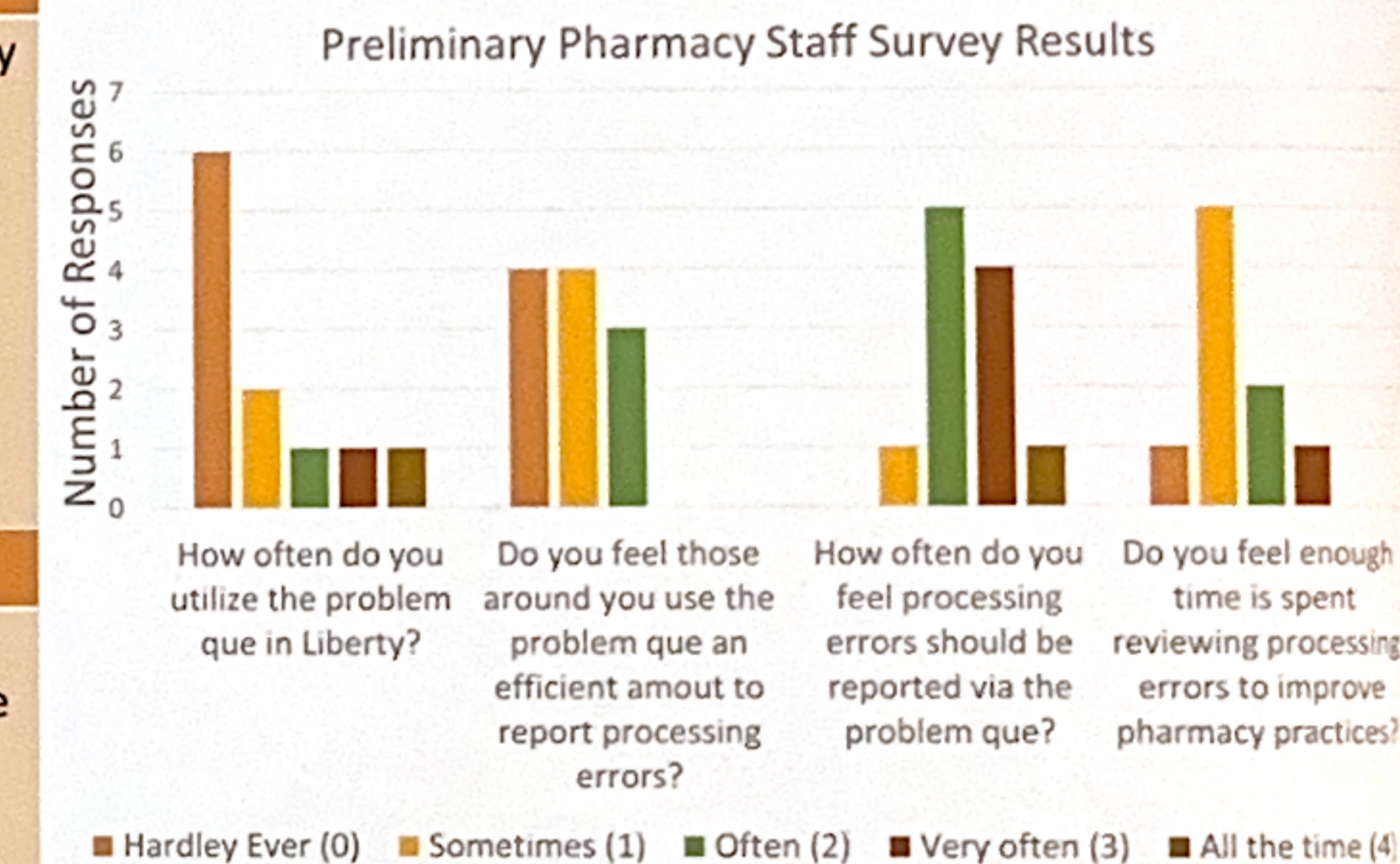
The majority of pharmacy staff at NCHC believed the PQ was being underutilized for reporting processing errors and that a better process was needed to fully utilize that tool. A total of 6 out of 11 respondents reported not using the PQ, but 9 out of 11 reported feeling the PQ should be used often. Specifically, staff wished for more specific categories to report errors and for more training on using the PQ to maintain consistency amongst all pharmacy staff.

Manual tracking of processing errors showed on average, two errors were reported per day in either category. Data tracking within the PQ occurred for 13 weeks total. A total of 179 prescriptions were reported. Of those prescriptions, 82 (45.8%) were due to missing LOVs and 27 (15%) were due to missing referrals. A notable increase in total referrals reported can be seen after 6 weeks of data tracking.

CONCLUSION

Establishing a consistent process for tracking processing errors in the pharmacy increased the amount of errors that were reported over time. Slowly implementing pharmacy staff into using the PQ increased utilization. Reporting was readily available to share with the pharmacy team to show trends and was able to be blinded if desired. More test cycles with broadened areas of focus are needed to ensure there is a stable process for processing error reporting and to assess staff comfort using the PQ.