

Assessment of Continuous versus Periodic Use of the LMPS Pharmacy Clinical Activity Tracker Tool



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Background

- In 2014, Lower Mainland Pharmacy Services (LMPS) developed and implemented a Pharmacy Clinical Activity Tracker (pCAT) based on national and locally relevant performance indicators.
 - 17 Clinical Pharmacy Key Performance Indicators (cpKPIs) measured.
 - Utilized the eight cpKPIs CSHP National working group determined to be most meaningful to patient outcomes.
- Currently the tool is being utilized:
 - Periodically at most sites for two consecutive weeks, approximately three times per year.
 - Continuously (year round) at some sites.
- No specific recommendations exist for the frequency of cpKPI data collection.

Objectives

- To determine the following outcomes for periodic (i.e. two week) versus continuous daily collection using the pCAT tool:
- Perceived advantages and disadvantages.
 - Pharmacists' preferences.
 - Perceived barriers and facilitating factors.

Methods

- Collection of cpKPIs began on Oct 19, 2015 for two weeks.
- A selection of pharmacists from BC Children's and Women's Hospital, Chilliwack General Hospital, St. Paul's Hospital, Surrey Memorial Hospital, and Vancouver General Hospital collected cpKPIs daily for six weeks (Oct 19-Nov 30, 2015). Participation was voluntary.
- The six week collection period was chosen to represent continuous daily use of the pCAT tool.
- All pharmacists who collected cpKPIs data were invited to complete a voluntary, anonymous, web-based survey.
 - Survey comprised of 26 questions using multiple choice, dichotomous, Likert scale, and open-ended questions.
- Chi-square tests to assess differences between responses in those collecting cpKPIs for two weeks and six weeks (0.05 significance level).

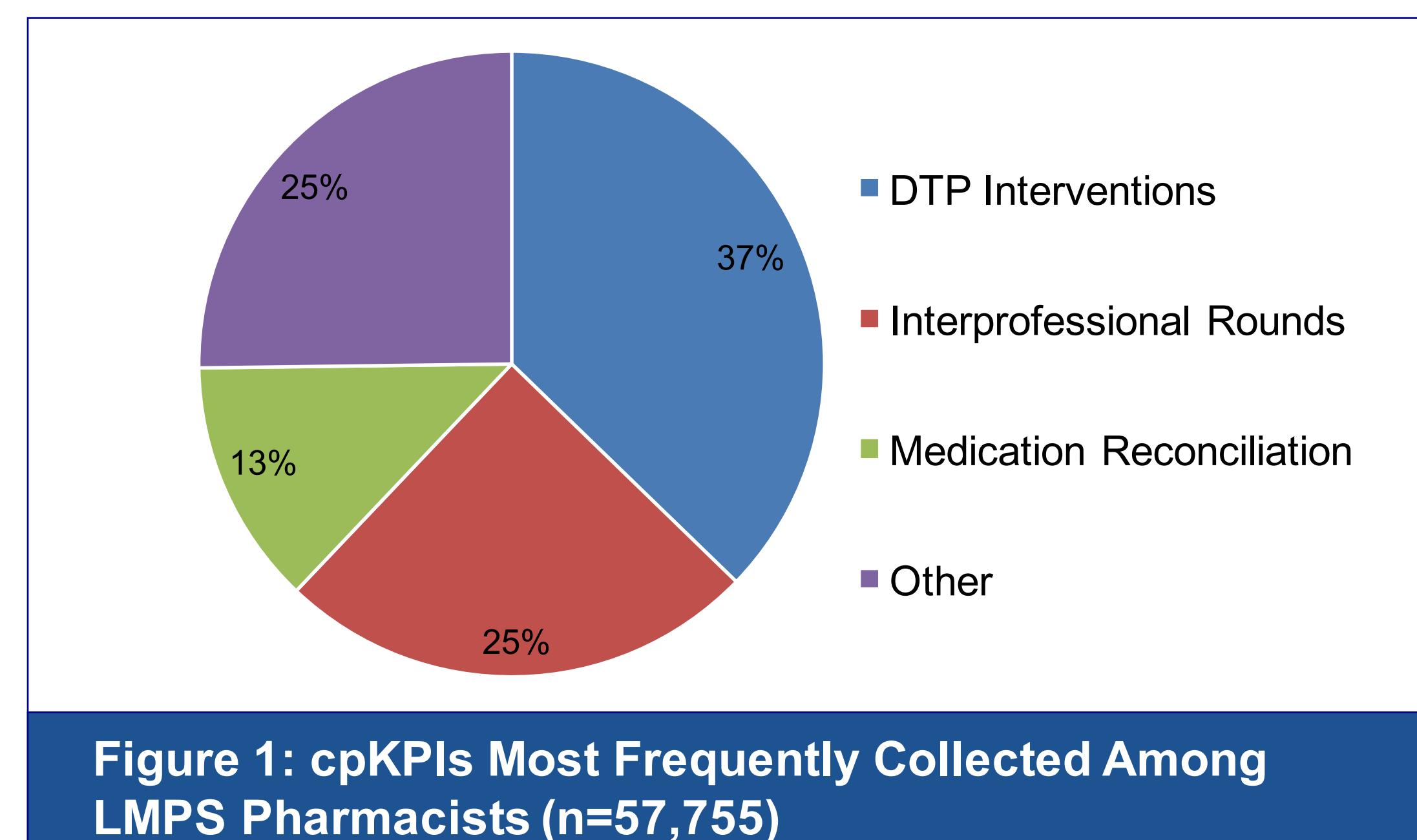


Figure 1: cpKPIs Most Frequently Collected Among LMPS Pharmacists (n=57,755)

	Two weeks (n=65)	Six weeks (n=23)	P-value
Collected cpKPI data ≥75% of the time	41% (26/64)	74% (17/23)	0.006
Tool used in a consistent manner each day	48% (31/65)	70% (16/23)	NSS
< 5 minutes spent using tool each day	14% (9/64)	35% (8/23)	0.03
Tool incorporated into workflow efficiently	20% (12/59)	45% (9/20)	0.03
KPIs clear and easy to interpret	18% (11/60)	45% (9/20)	0.02

Table 1: Survey Respondents' Reported Utilization and Perceptions of the pCAT Tool (n=88)

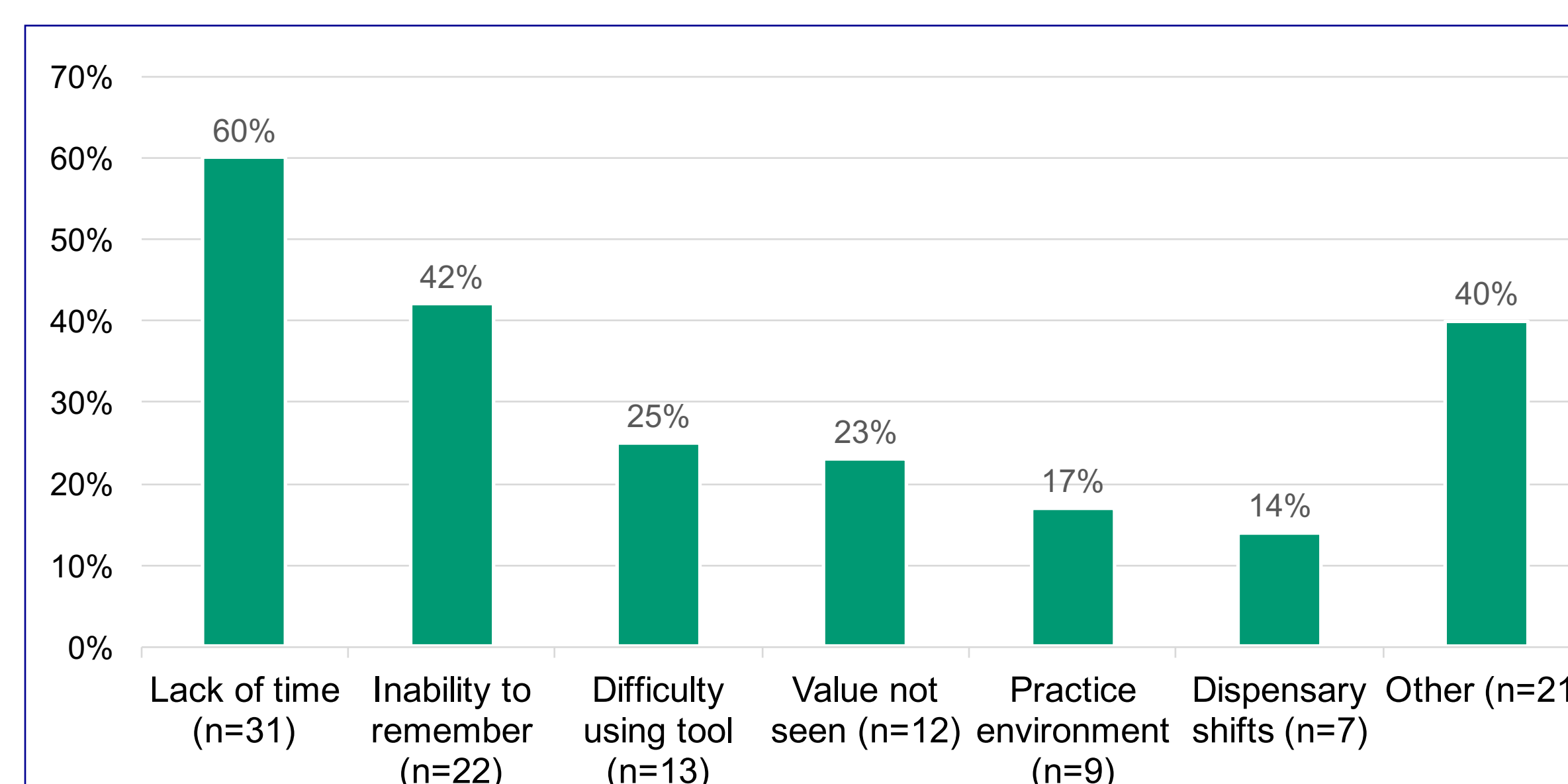


Figure 2: Pharmacist Reported Barriers to cpKPI Data Collection (n=52)

Results

- 57,755 total cpKPIs collected during Oct/Nov collecting period (Figure 1).
- 88 survey respondents.
 - 65 collected metrics for two weeks; 23 collected metrics for six weeks.
- There was no appreciable difference between the two week and six week groups with respect to the proportion agreeing to the question "I believe I would be more consistent and confident in how I used the pCAT tool if I used the tool regularly in daily practice" (34% versus 39%, respectively).
- Among the 52 respondents reporting barriers to cpKPI data collection, lack of time was cited as the most prevalent barrier (Figure 2).
- 25% of respondents believe that the tool is being used in a similar manner among pharmacists who collect cpKPI data using the pCAT.
- 43% (34/79) of respondents are aware of the purpose of cpKPI data collection.
- Among survey respondents, the KPI's perceived to be most unclear and difficult to interpret include:
 - Direct patient care bundle (72%)
 - Pharmaceutical care planning (60%)
 - DTP intervention: complex/high risk patient (57%)
- Of the pharmacists who responded to the survey question, 13% (5/39) in the two week group, versus 40% (6/15) in the six week group prefer continuous collection of cpKPI data (p=0.03).

Limitations

- Small sample size: under-representation of those collecting cpKPIs for six weeks.
- Variability in approach used to collect cpKPI data (paper, electronic, Patient Monitoring Form).
- Pharmacists working in different patient settings (acute, outpatient, community).
- Voluntary response bias.
- Exploratory data analysis.

Conclusions

- Further education for pharmacists is warranted regarding the purpose and utility of cpKPI collection, and further explanation of some cpKPIs deemed to be unclear.
- Pharmacists in the six week group appear to collect cpKPIs more consistently and efficiently, however time remains an important barrier for many pharmacists.
- Advantages with continuous cpKPI collection have been demonstrated; however, given the limitations in the data collected, we are unable to provide recommendations for the appropriate frequency of cpKPI collection across all LMPS sites.