Introduction
The Canadian Society of Hospital Pharmacists (CSHP) launched “CSHP 2015” as a vision of pharmacy practice excellence. CSHP 2015 is a patient-centered initiative that supports effective, scientific, evidence-based and safe medication use for our patients.

This initiative applies to all patients, pharmacists and practice settings.

It is a goal to ensure that medication use is effective, evidence-based, safe and contributes meaningfully to public health.

- Supporting the goals is a series of objectives particularly relevant to pharmacy practice and with measurable targets.

CSHP 2015 Objective 1.5 indicates that recently hospitalized patients or their caregivers (family members for example) will recall speaking with a pharmacist while in the hospital. CSHP established an initial target of 50 percent. The Hospital Pharmacy in Canada Survey 2007-2008 reported the 50 percent target was achieved by 11 percent of responding hospitals (baseline). A study in the former Calgary regional health authority reported 21 percent of patients recalled interaction with pharmacists during their hospital admission.

At the time of the Hospital Pharmacy in Canada Survey 2007-2008, only larger regional hospitals in New Brunswick were invited to respond (based on minimum number of acute beds). Following the new organization of health authorities in 2008, we were interested to determine how pharmacy services were perceived by patients across our new region including our smaller rural hospitals.

The primary purpose of this study was to determine the baseline prevalence of patients in Horizon Health Network who recall interacting with the pharmacist during their hospital admission, and their level of satisfaction with these interactions.

Methods
Former inpatients (aged 18 years or more) from 27 patient care units in 9 hospitals in Horizon Health Network were randomly selected to complete a telephone questionnaire following discharge from hospital. Health Records provided lists of potential subjects based on separations from April, November and December 2010. Exclusion criteria: age less than 18 years, length of stay less than 24 hours, deceased, discharged to nursing or special care facility, or transferred to another hospital; presence of condition limiting the telephone or provide information (e.g. verbal or hearing impaired, dementia).

Verbal consent was obtained from eligible subjects and questionnaire administered by phone interview in English or French as preferred by the patient. Patient responses were validated by locating pharmacist documentation in the patient health record in 2 zones where electronic clinical documentation was practiced.

It was estimated a sample size of 376 respondents would allow detection of a prevalence of 50 percent. Approval was granted by Horizon’s Research Ethics Board. Funding was provided by Medbuy Incorporated.

Results
Of 376 former inpatients discharged from 27 units, 1055 were screened and 399 subjects completed the phone questionnaire. Mean age of respondents was 67 (range 19 to 94) years with 56 percent being female. Key findings are shown in the box at right.

Result & Documented Intervention
For ease of retrieval analysis was limited to 15 patient care units where pharmacists’ clinical documentation was expected to be in the electronic health records (EHR) as opposed to manual charts. Excluding those patients with missing data, we examined pharmacist documentation in 1596 of 181 charts (88 percent).

- 59 of 181 (33%) of patients had a corresponding pharmacist intervention in the EHR
- 50 of 181 (27%) did not recall an interaction and had no pharmacist role in EHR
- 25 (14%) did not recall an interaction but electronic documentation indicated a pharmacist did see the patient
- 62 patients (34%) did recall an interaction but no recorded intervention was found in the EHR.

Documentation Dilemma
The study team was concerned that finding pharmacists’ electronic notes in only 33 percent of patients’ charts may be viewed as pharmacists’ “non-compliance” with clinical documentation. It was agreed that several patients interact with pharmacists at admission to provide medication histories which is currently captured by manual documentation practices in all sites.

A post hoc analysis was conducted by reviewing manual charts of patients with or without recall and with no pharmacist intervention in the EHR. Health Records documentation was available to provide 80 of 97 charts. Manual chart documentation by pharmacist (in form of medication history or medication reconciliation) was found in 82 of 85 charts reviewed. Post hoc results indicated 117 of 181 patients (65 percent) who recalled pharmacist interaction had a manual or electronic pharmacist chart note. Without regard to pharmacists’ manual or electronic chart notes were found in 185 of 181 (92 percent) patients’ records sampled.

Discussion
Primary Outcome: Patient recall
Through use of a phone questionnaire, our study found 46 percent of former inpatients recalled a hospital interaction with a pharmacist within 5 to 7 months of their discharge from selected units in Horizon hospitals. Our findings were more than double the result from a small study conducted in patients 5 months post-discharge from Calgary hospitals (Romanko-Black and Ing, 2009) and statistically consistent with the CSHP 2015 target of 50 percent.

Secondary Outcomes
A combined 97 percent of respondents indicated they were either satisfied or very satisfied in their interaction with a hospital pharmacist. This finding was consistent regardless of gender or hospital of discharge.

Offer of service: The majority of patients (93 percent) expressed their willingness to accept clinical pharmacy services at a future hospital admission.

Patients were also asked about which service or information would they like hospital pharmacists to provide if admitted in the future. Those narrative responses are being analyzed using qualitative techniques and will be reported separately.

Limitations
Patient recall is susceptible to bias. For example, one may respond positively when asked about the interaction simply because one is being asked. We attempted to minimize this effect by excluding patients with memory or cognitive deficits, and by identifying associations between recall and chart documentation. Older persons often have more difficulty recalling information than younger persons (Garber et al, 1999). We found the most senior age group (76-99 years) had a significantly greater number of participants who did not recall speaking to a pharmacist compared to the other age groups.

Although we had hoped to administer questionnaires to patients within 2 to 3 months post-discharge, the length of time to obtain lists of potential subjects was dependent on Health Records staff completing coding activities in all participating zones. Despite being unable to contact patients until 5 to 7 months after their admission, our results indicated they did recall these interactions during their hospital admission.

Conclusions
Overall 46 percent of former inpatients recalled speaking with a pharmacist during their stay. The vast majority of those surveyed were satisfied with this interaction and would welcome future services from hospital pharmacists.

A qualitative analysis of patient expectations for hospital pharmacy clinical services is in progress and will be reported separately.

Table 1: Patient Recall of Pharmacists Interaction* (n=399)

<table>
<thead>
<tr>
<th>Zone 1</th>
<th>Zone 2</th>
<th>Zone 3</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Respondents</td>
<td>105</td>
<td>106</td>
</tr>
<tr>
<td>Patient Recall</td>
<td>60</td>
<td>62</td>
</tr>
</tbody>
</table>

* Patient Recall: Yes = 46%; No = 54%; Don’t Know = 0%


discussion

Sincere thanks to our student “phone jockeys” without whose assistance this study would not have been possible:

- Dalhousie: Kayla Cameron, Gillian Donaldson, Mallory Price, Alyssa Stevens, Leah Warnwell
- Memorial: Amber Campbell, Tyranna Dunn, Ava Hill
- Mount Allison: Anna Doucette
- Waterloo: Krystyna Edwards
- Dalhousie: Anna Doucette

Data entry: Anna Doucette

Statistical analysis: Denise Laflamme-Duchene, Zone 2 Saint John

Table 2: Patient Satisfaction with Pharmacists Interaction

<table>
<thead>
<tr>
<th>Patient Satisfaction</th>
<th># of Respondents</th>
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<tbody>
<tr>
<td>Very Satisfied</td>
<td>138</td>
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<tr>
<td>Satisfied</td>
<td>48</td>
</tr>
<tr>
<td>Neutral</td>
<td>15</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>0</td>
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</table>

* Patient Satisfaction: No statistically significant difference (data not shown) between scoring based on gender, zone or age group

Table 3: Offer of Service

<table>
<thead>
<tr>
<th>Offer of Service</th>
<th># of Respondents</th>
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<tr>
<td>Yes</td>
<td>381</td>
</tr>
<tr>
<td>No</td>
<td>8</td>
</tr>
<tr>
<td>Don’t Know</td>
<td>10</td>
</tr>
</tbody>
</table>

* Offer of Service: No statistically significant difference (data not shown) between scoring based on gender or age group


CSHP PPC 2012

References