**APhA Final Report: Immunization Series Completion**

**Timeline progress:** Rollout of service complete at awardee pharmacy/clinic and will be maintained moving forward; expansion to CPESN-ID complete with tracking of numbers of additional pharmacy rollout ongoing; Planned expansion via highlight within CPESN work group targeted for next year

Of note, the business case assessment of this project was submitted and accepted for a PharmTANK presentation at APhA 2020; this service was highlighted in an ASHP MidYear CE (12/10/19, presented by Jaime Hornecker and Shanna O’Connor)

**Patient volume:**

**Anticipated:** 30 patients

**Actual:** Original patient population (HepC clinic): 11 patients referred (total); 1 completed series (clinic informed via fax); 2 in progress (completion December 2019 and Mar 2020) but successful thus far in series; 5 additional in progress with next shots due in February (1), April (1), and May (3) 2020; 1 unable to be contacted (clinic notified); 1 in process of being contacted; 1 lost insurance and now being followed through patient assistance at clinic.

Expanded patient population (HIV clinic): 15 patients referred, process for determining where patient in series aligned between clinic and pharmacy; pharmacy collaborating with clinic for coverage of vaccine and alignment with patient visits/medication pickup.

**Findings:** Unexpected changes to clinic staff in the hepatitis C clinic resulted in significantly lower referrals than anticipated, but workflow within pharmacy seems to work reasonably well per pharmacy staff report. An approximate 33% initial uptake of initial vaccine is also significantly lower than anticipated, but is likely reflective of patient population (underinsured, rural, frequently in transient housing situations). Attempted expansion to new patient population (persons living with HIV) was initially unsuccessful but modifications to workflows have created a more patient-centric service that prioritizes patients receiving immunization where they’re comfortable and collaboration with clinic. Significant geographical spread in expanded patient population (15 minutes to 1.5 hours from clinic, with majority living more than 15 minutes away) may be driving numbers down, but general success suggests this service is one that may work elsewhere.

Workflow within the pharmacy is established and straightforward to maintain. Patients are tracked on a spreadsheet, which is checked by assigned staff member weekly. Staff then contact clinic nurse to align immunization administration with other patient care from clinic (typically ordered via pharmacy and administered at clinic for patient ease of access).

**QI:** Vaccine completion documentation sent to clinic (Nov 2019) and presence confirmed in EHR (Nov 2019); Patient no-show/inability to contact sent to clinic (Oct 2019) and presence of update confirmed in HER (Nov 2019); ongoing QI integrated into service plans for quarterly review

**Changes to planned research (6/2019):**

Turnover of HepC providers resulted in decreased patient population so 2 things planned:

1. Expand the patient population to anyone with a prescription for a vaccination that is part of a series (Gardasil, Shingrix, Hepatitis, Engerix)
   1. Timeline: Early July 2019: **Completed training for all pharmacy staff last week of June 2019**
2. Share resources with 16 additional pharmacies to expand service delivery
   1. Timeline:
      1. Resource creation: Sep 2019 (Caitie Brown) **Completed Oct 2019**
      2. Resource email to all CPESN pharmacies: Oct 2019 (Caitie Brown) **Completed Oct 2019**
      3. Data requests and collection: Nov-Dec 2019 **Data collection ongoing (initial outreach suggested pharmacies need more time to explore potential clinic partnerships for extensive referral)**

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| Study Item | Time | Completed? |
| Development of pharmacy protocol, pharmacy documentation, clinic protocol, and referral/consent form | 0-2 weeks (Oct 1-12 2018) | Yes |
| Referral forms from clinic to pharmacy and pharmacy outreach to patients (ongoing) | 2 weeks-22 weeks (Oct 15 2018-May 1 2019)  Date extended through end of November 2019 for data collection | Yes, ongoing as part of sustained service |
| Follow-up vaccinations administered (ongoing) | 6 weeks-11 months (Nov 12 2018- Dec 1 2019) | Yes, ongoing as part of sustained service |
| Confirmation of vaccination documentation in clinic EHR (ongoing) | 8 weeks-11 months (October 22 2018-  Oct 1 2019 | Yes, ongoing as part of sustained service |
| Data assessment (vaccination rate, follow-up rate, tabulation of reasons for patient refusal) | 8 months-11 months (July 1 2019- Oct 1 2019) | Complete for study period. Will be maintained quarterly as part of sustained service. |
| Finalization of manuscript/submission of abstracts | 11 months-13 months (Oct 1 2019-Nov 29 2019) | Manuscript started; plan to deliver data query in Jan 2020 (after this study period) |