Outcomes Evaluation of the Bloom Program

October 2016
Acknowledgements

Evaluation of the Bloom Program is a result of the input and contributions of many individuals and groups from across Nova Scotia. First and foremost, we would like to thank those who created the data upon which this evaluation is based – the Bloom Program participants, pharmacists and other pharmacy staff, physicians, representatives from mental health and addictions organizations and agencies, and family members. In particular, we would like to acknowledge the tremendous efforts of the lead Bloom pharmacists who facilitated the data collection and helped to raise awareness of the opportunities for their patients and others to participate in the evaluation. The evaluation plan and its execution were developed and at times led by different program evaluators, including Nancy Carter, Jennifer Dixon, and Lisa Jacobs. In her role with the Nova Scotia Health Research Foundation, Nancy Carter developed the initial logic model and related data collection plans and tools. Jennifer Dixon created an updated comprehensive evaluation plan and completed a large component of it. Lisa Jacobs completed the final steps of data collection and led the data analysis and report preparation. A draft of the report was reviewed by the Bloom Program steering committee and representatives from the Nova Scotia Health Authority (Mental Health & Addictions and Primary Care) and the provincial government’s Department of Health and Wellness. The final report includes changes based on their feedback. We would also like to acknowledge the helpful and timely contributions to this report by Brittany Wagner who was a summer student from the College of Pharmacy supported by a studentship grant from the Drug Evaluation Alliance of Nova Scotia. Finally, we want to express our tremendous gratitude to Vanessa Sherwood who administered the demonstration project from the beginning and worked to support the evaluation process throughout.
Glossary of terms and definitions

**Lead Bloom pharmacist**  The pharmacist at each participating pharmacy who is responsible for implementation of program policies and procedures as well as program-related communications and quality assurance.

**Longitudinal care**  Care provided to patients with one or more long-standing or chronic conditions that benefit from regular follow-up care and support over an extended period of time. It is intended to meet a patient’s multiple health needs.

**Medication issues**  Generally categorized as: lack of or inadequate treatment response, adverse effects (induced by the presence or withdrawal of the medication, a medication interacting with another medication, food or disease), non-adherence (over or under use), and use of medicines when not necessary.

**Medication management**  The activities involved in screening for, identifying, prioritizing and responding to medication-related issues; inclusive of assessment, follow-up care, therapy monitoring, education, communications, collaboration, research, advocacy, and other activities that support informed choice about medications.

**Mental Health and Addictions***  Mental Health and Addictions Branch within the Nova Scotia Health Authority

**Patients**  Bloom Program participants who are people living with mental health, and possibly addictions problems in the community setting.

**Pharmacist’s scope of practice**  Standard 1 of the Nova Scotia College of Pharmacists ([Provide Patient Centred Drug Therapy Management](https://www.novascotia.gov.ca/pcdtm)) states: “Pharmacists, in collaboration with colleagues, patients and other health care professionals, use their unique knowledge and skills to support the patient on an ongoing basis in meeting their drug and health related needs to achieve optimal health outcomes.” For a full regulatory description of pharmacist scope of practice refer to the [Pharmacy Act of Nova Scotia](https://www.gov.ns.ca/act/2020/19PharmacyAct.pdf).

**Polypharmacy**  Sometimes referred to as polytherapy, a term used to indicate the use of multiple medications by the same individual concurrently, thereby increasing the risk for drug-related morbidity. Inappropriate polypharmacy is a term used to clarify that polypharmacy can be against the patient’s best interest, representing ineffective therapy, unnecessary pill burden, wastage, adverse effects, or safety problems.

**Social support**  The component of the pharmacist-patient interaction in which the pharmacist provides social support to the patient that is not specific to their...
drug therapy. Social support refers to the various types of support (i.e., assistance/help) that people receive from others and it is generally classified into three major categories: emotional, instrumental and informational support. This includes listening to patients’ concerns and distress, working to build rapport and trust, supporting self-management, providing encouragement and positive feedback, promotion of healthy behaviours, decisions and actions, and promoting self-efficacy.

*Where ‘mental health and addictions’ are referenced, this refers to mental health and addictions services and supports generally, not those specific to services delivered by the Nova Scotia Health Authority. When the report makes references to Mental Health and Addictions, this is a reference to formal services offered by the Nova Scotia Health Authority.*
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Executive summary

The Outcomes Evaluation of the Bloom Program presented in this report establishes that the Bloom Program demonstration project increased and enhanced mental health and addictions care and services for Nova Scotians.

The Bloom Program is a community pharmacy demonstration project designed to increase and improve mental health and addictions care for Nova Scotians. The 27-month demonstration project, started in September 2014, was funded through the Nova Scotia Mental Health and Addictions Strategy, Together We Can. Funding for the demonstration project ends in December 2016.

Seventy pharmacists, and pharmacy staff, in 13 rural and 10 urban community pharmacies across Nova Scotia enrolled 221 Nova Scotians living with mental illness and addictions problems in the Bloom Program. The key evaluation outcomes are centred on the core activities of the Bloom Program and include: 1) patient-centred medication management services provided by pharmacists; 2) access and navigation of the health care system; 3) collaboration and communication with other health care professionals and community organizations by pharmacists; and 4) perceptions of the pharmacists’ roles in an optimized scope of practice in mental illness and addictions care. This was a mixed methods evaluation. Data sources included interviews (n=41), surveys (n=100), and 201 anonymized patient charts. Evaluation participants included patients, physicians, pharmacists and pharmacy staff, and members of mental health and addictions organizations and services.

Bloom Program patients closely mirror the characteristics of the mental health population in Nova Scotia. Anxiety (69%), depression (63%), and sleep (36%) disorders were the most frequent patient-identified mental health problems, followed by substance use disorders (16%), PTSD (14%) and bipolar disorder (11%). The most commonly used medications were antidepressants (72%), benzodiazepines and related drugs (53%), and antipsychotics (29%); 68% of patients were taking multiple psychotropics. Physical health problems (e.g. pain & neurological disorders: 38%; cardiovascular disease: 28%) were prevalent: 71% of the participants were taking multiple physical health medications. Overall, Bloom Program patients were taking an average of 5.5 prescribed medications (range 0 to 24). Use of nicotine (39%), alcohol (38%), and marijuana (18%) were common. Most patients (81%) enrolled in the program to work with their Bloom pharmacist to optimize their medication regimen in order to achieve improved symptomatic and functional health outcomes. In addition, 24% identified managing adverse effects and 13% identified help with discontinuing medication as reasons for enrollment.

Four in five medication issues (e.g., unresolved symptoms or impaired functioning, adverse effects, overmedication, dependence, etc.) were fully resolved or improved.

Efficiencies in care by pharmacists working collaboratively with patients and physicians supported the high rate of successful medication and health outcomes. Bloom Program patients increased their medication and health knowledge and accessed and utilized pharmacists effectively. Physicians viewed the Bloom Program as promoting patient self-efficacy and facilitating the avoidance of negative, possibly costly, health and medication issues.

Pharmacists helped patients to successfully access and navigate the health care system and other services in their communities for mental health, addictions, and physical health needs.
Bloom Program pharmacists were required to conduct an environmental scan of their local mental health and addictions communities to support patient navigation. Collectively, pharmacists recorded 153 meetings and identified 320 local mental health and addictions programs, services, and supports before offering the Bloom Program. 61% of patients reported that their pharmacist helped them access other mental health services; 42% were helped to access services for their physical health; 25% were helped to access addictions care; and, 47% were assisted in finding other services and supports in their community. Almost three of every four patients surveyed (72%) reported being more aware of community resources and 47% were able to access them faster than previously.

The Bloom Program was easily accessible for patients in their community pharmacies through regularly scheduled as well as on-demand care provided either through face-to-face or telephone interactions that patients accessed on weekdays, evenings, and weekends.

Bloom Program patients were committed to the program with 90% coming back after their initial assessment with their pharmacist, which averaged 50 minutes and was critical to patient-centred care, collaboration, and longitudinal follow-up. The average number of visits was five-six per patient over six months. Most meetings were approximately 20 minutes and varied based on patient need. In some cases, pharmacists made home visits.

The Bloom Program offered options in patients’ care, particularly for those living in rural area.

The availability of the Program in local community pharmacies minimized the need for travel with its associated costs and inconveniences. It provided patients with interim care while they were awaiting access to other mental health and addictions services or transitioning from one level of care to another. Social support provided by pharmacists that coincided with the medication management activities generated significant appreciation from patients. Many Bloom Program patients said they were grateful to find a caring, compassionate health professional at their local pharmacy who made themselves available to listen. Physicians echoed this benefit of the Program.

Access to care increased. The program provided an alternative care option for some patients who were not otherwise engaged in care.

Some patients were isolated and/or unwilling to access formal care for a variety of reasons, including stigma and unsatisfactory past experiences. The pharmacy offered a safe, neutral place for them to seek medication management and social support, and ultimately, re-integration to primary care and/or mental health and addictions services.

Both physicians and pharmacists acknowledged the importance of communication and collaboration and wanted more.

Most physicians supported the Bloom Program and its focus on enhanced collaboration as they recognized and utilized pharmacists’ psychotropic medication expertise and see a role for pharmacists in helping patients manage their medications within a collaborative care model. Patients expressed sentiments around better care being achieved through collaboration and were directive in requesting more. The evaluation found many examples of effective communication and collaboration between pharmacists and physicians and there are opportunities to work to enhance the nature, mechanisms, type, and frequency of
communication among pharmacists and the patient’s circle of care, including family physicians and specialists.

**Education was a core activity provided by pharmacists to patients and their circle of care.**

17% of pharmacists’ patient care activities were education focused. Patients and physicians commented frequently on the value attributed to the pharmacist’s sharing of information, often in support of informed patient treatment decisions. Seven of 10 patients stated education activities also involved family and other caregivers.

**The high quality of the Bloom Program was widely recognized and patients strongly endorsed it for others.**

Patients viewed the program highly with 89% rating it as excellent to very good and 92% indicated they would recommend the Program to others.

**In summary**, the Bloom Program increased the capacity and care provided by pharmacists, who are accessible 12 or more hours per day, often seven days a week, throughout rural and urban communities in Nova Scotia. The Program supported better health care and better health and medication outcomes. It provided comprehensive assessments of medication and related health issues, regular follow-up care, ongoing collaboration with other health care providers, and navigation and social support for patients.

**The evaluation demonstrated that patients, physicians, and pharmacists want to see the Bloom Program extended, expanded, and better promoted** to allow for improvements to be made and for access to increase. This can be achieved by supporting the transition of the Bloom Program from this demonstration project to a more secure program, with continued evaluation, that is strategically aligned with other complementary initiatives in primary care and mental health and addictions services in Nova Scotia.
Introduction

The Bloom Program (formally referred to as the Mental Health and Addictions Community Pharmacy Partnership Program) is a community pharmacy project designed to increase and enhance mental health and addictions services for Nova Scotians. Pharmacists work closely with people living with mental health and addictions problems to provide comprehensive consultation and follow-up care to improve and/or resolve medication management issues specific to mental health and addictions and related physical health. Bloom Program pharmacists help patients navigate the mental health and addictions system to access other services and supports and collaborate with other health care providers such as family physicians to addresses medication management issues.

Funded under the Nova Scotia Mental Health and Addictions strategy, Together We Can, the Bloom Program was initiated in March 2014 and it is funded until December 31, 2016. During the active project time period, 221 Nova Scotians living with mental health and addictions problems accessed the program as provided by 23 Bloom Program pharmacies located in 13 rural and 10 urban communities across Nova Scotia.

This report presents the findings of an evaluation of the project’s expected short-term, and several medium-term, outcomes. It also presents some high level findings related to areas where the program could be strengthened in order to maximize its impact should it be expanded.

The information in this report is divided into the following major sections:

Section 1: Description of the Bloom Program: background, organizational structure and key activities; patient care processes.

Section 2: Evaluation outline: logic model, outcomes, methodology and limitations

Section 3: Evaluation findings (outcomes and program feedback)

Section 4: Discussion of findings

Section 5: Implications

Section 6: Recommendations
Bloom Program

Nova Scotia Context

The Bloom Program was developed out of an identified need in the province to improve services and supports for people living with mental health and addictions problems. In 2010, the Government of Nova Scotia renewed its focus on strengthening mental health and addictions services and appointed a Mental Health and Addictions Strategy Advisory Committee to identify key areas where improvements were needed. The Committee reported that Nova Scotia had higher prevalence of mood and anxiety disorders, alcohol misuse, binge drinking, and daily smoking compared to other Canadians and identified significant local and system-wide service gaps. Furthermore, among this highly stigmatized and vulnerable population, many had concurrent mental health and addictions disorders, chronic disease comorbidity, and high use rates of psychotropic medication. The findings from the Advisory Committee informed the government’s five-year mental health and addictions strategy, Together We Can, which was released in April 2012.

During this same time period (2013), Drs. David Gardner and Andrea Murphy at Dalhousie University’s Department of Psychiatry and College of Pharmacy were implementing a program they had developed for Nova Scotia pharmacists known as More Than Meds.1 Briefly, More Than Meds was a capacity-building project to support pharmacists in providing enhanced mental health care for people with lived experience of mental illness. It consisted of multiple components that included an education and training day that partnered community pharmacists with community members with lived experience of mental illness, pharmacist-led educational outreach in the community, and relationship building between pharmacies and local mental health advocacy organizations. The program developed a network of 35 trained pharmacists who, using a train-the-trainer model, established a community of practice via a website, regular communications, a newsletter and the use of social media.2

The concept for the Bloom Program evolved from the experiences and feedback gained from the More than Meds program. Both programs are rooted in the knowledge that pharmacists are one of the most accessible health care providers in communities in terms of location and hours of operation, with access available in many rural and remote communities. Their community-based setting, along with their expertise in psychotropic medications, make them uniquely positioned health care professionals who can help bridge some of the gaps in the health system and improve patient outcomes in mental health and addictions. Both programs also seek to support pharmacists to work optimally within their scope of practice.3 In the Bloom Program this meant that pharmacists provide more comprehensive, longitudinal (over time rather than one time only) patient care that includes assessment, planning and follow-up;

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1 See www.morethanmeds.com for more information.
3 Standard 1 of the Nova Scotia College of Pharmacists (Provide Patient Centred Drug Therapy Management) states: “Pharmacists, in collaboration with colleagues, patients and other health care professionals, use their unique knowledge and skills to support the patient on an ongoing basis in meeting their drug and health related needs to achieve optimal health outcomes.” For a full regulatory description of the scope of practice of a pharmacist, refer to the Pharmacy Act of Nova Scotia.
providing support and working more collaboratively with family physicians, psychiatrists, as well as other mental and physical health care providers.

In light of the province’s renewed focus on improving mental health and addictions, Drs. Gardner and Murphy submitted a proposal to the provincial government under the province’s mental health and addictions strategy to implement the Bloom Program demonstration project. The proposal was approved in March 2014 as an initiative under the strategy’s key priority area: Intervening and treating early for better results. Implementation of the program began immediately.

**Organizational structure and staffing**

*Organizational structure*

The overall implementation and management of the Bloom Program was carried out by the project Implementation Team: two project leads (Drs. David Gardner and Andrea Murphy), one project coordinator/manager (Ms. Vanessa Sherwood), and part-time support staff (various students). A Bloom Program steering committee, which met three times per year, provided oversight of the strategic direction of the program and provided feedback and advice to the project leads regarding program activities, quality, outcomes, and evaluation. Agencies, organizations and related stakeholder groups represented on the committee are listed in Table 1 and the names of the individual representatives can be found in Appendix A.

The program’s governance structure is shown in Figure 1. The program coordinator/manager, identified as the Administrator, provides a central link to the implementation team, pharmacies, and steering committee, and also to ad hoc peer-to-peer support. Peer support was identified as a potential need for some pharmacies that were offering the program but that may have been having difficulties with implementing or maintaining its policies and procedures, for example, documentation standards. The steering committee liaised with the Department of Health and Wellness who were active, non-voting members of the steering committee.

**Table 1: Bloom Program steering committee**

<table>
<thead>
<tr>
<th>Organizations</th>
<th>Representatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacy Association of Nova Scotia</td>
<td>1</td>
</tr>
<tr>
<td>Nova Scotia College of Pharmacists (non-voting)</td>
<td>1</td>
</tr>
<tr>
<td>Psychiatrist</td>
<td>1</td>
</tr>
<tr>
<td>Family physician</td>
<td>1</td>
</tr>
<tr>
<td>Community members representing people living with mental illness and</td>
<td>2</td>
</tr>
<tr>
<td>addictions problems</td>
<td></td>
</tr>
<tr>
<td>Department of Health and Wellness</td>
<td>1</td>
</tr>
<tr>
<td>Community pharmacists</td>
<td>2</td>
</tr>
<tr>
<td>Nova Scotia Health Authority, Addictions &amp; Mental Health</td>
<td>1</td>
</tr>
<tr>
<td>Ex-officio members (non-voting)</td>
<td>4</td>
</tr>
</tbody>
</table>
Independent of the operations of the program, a part-time project evaluator was responsible for managing and conducting evaluation activities. This position was filled by Jenn Dixon from June 2015 to May 2016, and Lisa Jacobs from June 2016 to current. Several students, from Dalhousie’s College of Pharmacy, Faculty of Health Professions, contributed to program development and implementation as well as evaluation. Two pharmacists were hired to support the creation of the evaluation chart review by completing the transcribing of patient chart information to an anonymized database.

**Key project activities**

Developing and implementing the Bloom Program project was accomplished by completing key project activities outlined in **Table 2**. A detailed timeline of activities and milestones can be found on **Figure 2**.

**Table 2**: Key Bloom Program project activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Time frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hire project staff and build the Steering Committee</td>
<td>Early project period</td>
</tr>
<tr>
<td>2. Conduct communication and outreach about Bloom Program</td>
<td>Early project period</td>
</tr>
<tr>
<td>3. Recruit pharmacies to deliver the Bloom Program</td>
<td>Early project period</td>
</tr>
<tr>
<td>4. Deliver training sessions for Lead Bloom Program pharmacists</td>
<td>Throughout project period</td>
</tr>
<tr>
<td>5. Support pharmacies and pharmacists to deliver the Bloom Program</td>
<td>Throughout project period</td>
</tr>
<tr>
<td>6. Conduct evaluation activities</td>
<td>Throughout project period</td>
</tr>
</tbody>
</table>
Significant time was spent early on in the project travelling to communities to introduce the project to key stakeholders (pharmacists and pharmacy owners, family physicians, psychiatrists and other mental and physical health care professionals, people living with mental health and addictions problems, family members and community organizations). Many of these meetings took the format of public forums and information sessions. These sessions were conducted by the implementation team and, as pharmacies were recruited, by pharmacists. Figure 3 provides a timeline of the key outreach activities.

**Program Charter**

The Bloom Program is rooted in a Program Charter that was developed by the program leads and reviewed and amended by the steering committee. The Charter specifies the principles and commitments of the program that every Bloom pharmacy is expected to adhere to when delivering the program. The project principles, listed here, shape the program’s key components.

- Patient-centred
- Community oriented
- Evidence-informed
- Holistic
- Collaborative
- Dedicated to informed patient care
- Supportive of patient recovery and discharge from the program

A copy of the Bloom Program Charter is included as Appendix B.
**Figure 2**: Timeline of the development and implementation of the Bloom Program

- **2014**
  - Mar: Project Coordinator hired
  - Aug: DHW Funding

- **2015**
  - Jun: 1st Bloom Training Session
  - Aug: 1st Bloom Pharmacy
  - Sep: 2nd Bloom Training Session
  - Nov: 3rd Bloom Training Session

- **2016**
  - Jan: Program Evaluator 1 hired
  - Sep: Patient enrollment put on hold

- **2017**
  - Feb: DHW Funding
  - Apr: Tariff negotiations
  - May: Health authority re-design
  - Oct: Program Evaluator 2 hired

- **Bloom Program Demonstration Project**
  - Bloom Pharmacy recruitment
  - Bloom Program evaluation

- **Bloom patient enrollment**
- **Bloom demonstration project patient care and community support activities**
Figure 3: Timeline of Bloom Program outreach activities
Theory

The Bloom Program is underpinned by a theoretical model of behaviour, the Behaviour Change Wheel (BCW),\(^4\,5\) a model that was also used in More Than Meds\(^6\) capacity building project. At the centre of the BCW is the model of behaviour known as the COM-B (C=capability, O=opportunity, M=motivation) (Table 3). Within capability, there is psychological and physical capability; for motivation there is reflective and automatic motivation; and finally, in opportunity there is physical and social opportunity. The COM-B is also mapped with the Theoretical Domains Framework (TDF). The TDF consists of 14 domains that serve as influences on behaviour. For example, if pharmacists have knowledge and skills (TDF domains) with respect to managing antidepressant pharmacotherapy, they would be considered to have the psychological capability (C of the COM-B). Information such as this is then applied to designing interventions. The BCW has been mapped with various intervention functions and policy categories to help with intervention design (Tables 4 and 5). With the example of knowledge and skills, if pharmacists were experiencing struggles in these domains, education and training could be used to improve knowledge and skills (Table 5). The design, development, and implementation of the Bloom Program is based on the implementation team’s knowledge and experience of the influences on behaviour and potential interventions that may impact various areas of the COM-B. This knowledge and experience has been built by appraisal of existing published and grey literature, international collaborations, tacit knowledge, and evidence from local programs, including More Than Meds.\(^3\,7\,8\).

Table 3: Mapping of the Behaviour Change Wheel’s COM-B system to the TDF domains\(^1\,2\)

<table>
<thead>
<tr>
<th>COM-B component</th>
<th>TDF Domain</th>
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<tbody>
<tr>
<td>Capability</td>
<td>Psychological</td>
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<tr>
<td></td>
<td>Knowledge</td>
</tr>
<tr>
<td></td>
<td>Memory, Attention and Decision</td>
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<tr>
<td></td>
<td>Processes</td>
</tr>
<tr>
<td></td>
<td>Skills</td>
</tr>
<tr>
<td></td>
<td>Behavioural Regulation</td>
</tr>
<tr>
<td>Physical</td>
<td>Skills</td>
</tr>
<tr>
<td>Opportunity</td>
<td>Social</td>
</tr>
<tr>
<td></td>
<td>Social Influences</td>
</tr>
<tr>
<td></td>
<td>Environmental Context and Resources</td>
</tr>
<tr>
<td>Motivation</td>
<td>Reflective</td>
</tr>
<tr>
<td></td>
<td>Social/Professional Role &amp; Identity</td>
</tr>
<tr>
<td></td>
<td>Beliefs about Capabilities</td>
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<tr>
<td></td>
<td>Optimism</td>
</tr>
<tr>
<td></td>
<td>Beliefs about Consequences</td>
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<tr>
<td></td>
<td>Intentions</td>
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<td></td>
<td>Goals</td>
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<tr>
<td></td>
<td>Automatic</td>
</tr>
<tr>
<td></td>
<td>Social/Professional Role &amp; Identity</td>
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<td></td>
<td>Optimism</td>
</tr>
<tr>
<td></td>
<td>Reinforcement</td>
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<tr>
<td></td>
<td>Emotion</td>
</tr>
</tbody>
</table>

### Table 4: Definitions of interventions and policies

<table>
<thead>
<tr>
<th>Interventions</th>
<th>Definition</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>Increasing knowledge or understanding</td>
<td>Providing information to promote healthy eating</td>
</tr>
<tr>
<td>Persuasion</td>
<td>Using communication to induce positive or negative feelings or stimulate action</td>
<td>Using imagery to motivate increases in physical activity</td>
</tr>
<tr>
<td>Incentivisation</td>
<td>Creating expectation of reward</td>
<td>Using prize draws to induce attempts to stop smoking</td>
</tr>
<tr>
<td>Coercion</td>
<td>Creating expectation of punishment or cost</td>
<td>Raising the financial cost to reduce excessive alcohol consumption</td>
</tr>
<tr>
<td>Training</td>
<td>Imparting skills</td>
<td>Advanced driver training to increase safe driving</td>
</tr>
<tr>
<td>Restriction</td>
<td>Using rules to reduce the opportunity to engage in the target behaviour (or to increase the target behaviour by reducing the opportunity to engage in competing behaviours)</td>
<td>Prohibiting sales of solvents to people under 18 to reduce use for intoxication</td>
</tr>
<tr>
<td>Environmental restructuring</td>
<td>Changing the physical or social context</td>
<td>Providing on-screen prompts for GPs to ask about smoking behaviour</td>
</tr>
<tr>
<td>Modelling</td>
<td>Providing an example for people to aspire to or imitate</td>
<td>Using TV drama scenes involving safe-sex practices to increase condom use</td>
</tr>
<tr>
<td>Enablement</td>
<td>Increasing means/reducing barriers to increase capability or opportunity1</td>
<td>Behavioural support for smoking cessation, medication for cognitive deficits, surgery to reduce obesity, prostheses to promote physical activity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Policies</th>
<th>Definition</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication/marketing</td>
<td>Using print, electronic, telephonic or broadcast media</td>
<td>Conducting mass media campaigns</td>
</tr>
<tr>
<td>Guidelines</td>
<td>Creating documents that recommend or mandate practice. This includes all changes to service provision</td>
<td>Producing and disseminating treatment protocols</td>
</tr>
<tr>
<td>Fiscal</td>
<td>Using the tax system to reduce or increase the financial cost</td>
<td>Increasing duty or increasing anti-smuggling activities</td>
</tr>
<tr>
<td>Regulation</td>
<td>Establishing rules or principles of behaviour or practice</td>
<td>Establishing voluntary agreements on advertising</td>
</tr>
<tr>
<td>Legislation</td>
<td>Making or changing laws</td>
<td>Prohibiting sale or use</td>
</tr>
<tr>
<td>Environmental/social planning</td>
<td>Designing and/or controlling the physical or social environment</td>
<td>Using town planning</td>
</tr>
<tr>
<td>Service provision</td>
<td>Delivering a service</td>
<td>Establishing support services in workplaces, communities etc.</td>
</tr>
</tbody>
</table>
Table 5: Links between the components of the 'COM-B' model of behaviour and the intervention functions

<table>
<thead>
<tr>
<th>Model of behaviour (COM-B) and sources</th>
<th>Education</th>
<th>Persuasion</th>
<th>Incentivisa-tion</th>
<th>Coercion</th>
<th>Training</th>
<th>Restriction</th>
<th>Environmental restructuring</th>
<th>Modelling</th>
<th>Enablement</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-Ph</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C-Ps</td>
<td></td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M-Re</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M-Au</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td></td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>O-Ph</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>O-So</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>√</td>
</tr>
</tbody>
</table>

Program components

The overall goal of the Bloom Program is to improve the health and quality of life of people with mental illness and addictions living in Nova Scotia. To achieve this, the program was based on nine interconnected components that reflect the program’s principles and commitments. These components are laid out in Table 6.

Table 6: Bloom Program components

<table>
<thead>
<tr>
<th>Component</th>
<th>Component description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Linkages</td>
<td>Developing and maintaining linkages with community mental health organizations.</td>
</tr>
<tr>
<td>2. Outreach</td>
<td>Providing outreach activities by the pharmacy and its pharmacists to support the local mental health community.</td>
</tr>
<tr>
<td>3. Collaboration</td>
<td>Enhancing collaboration and communication with other health providers, especially primary care and addictions and mental health care services.</td>
</tr>
<tr>
<td>4. Resources</td>
<td>Developing a local mental health knowledge exchange resource “centre”.</td>
</tr>
<tr>
<td>5. Training</td>
<td>Providing program-related education and training to all pharmacy team members.</td>
</tr>
<tr>
<td>6. Patient registration</td>
<td>Enrolment of targeted eligible patients by pharmacists with the program.</td>
</tr>
<tr>
<td>7. Enhanced patient care</td>
<td>Providing enhanced patient support services including:</td>
</tr>
<tr>
<td></td>
<td>• Mental health and addictions systems navigation, resources and access support</td>
</tr>
<tr>
<td></td>
<td>• Triage of care to appropriate health providers as indicated</td>
</tr>
<tr>
<td></td>
<td>• In depth medication therapy management involving enhanced monitoring and overall assessment of addictions and mental illness as well as physical health disorders and their treatments</td>
</tr>
<tr>
<td></td>
<td>• Collaboration with patients, families and other care providers to identify and resolve mental and physical health problems</td>
</tr>
<tr>
<td></td>
<td>• Education consultations regarding mental health disorders and their treatment</td>
</tr>
<tr>
<td></td>
<td>• Real-time support in person or via telephone during posted pharmacy operations</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>8.</td>
<td>Quality assurance  Pharmacies participating in the program will maintain records demonstrating the adherence to the program’s critical components. Participating pharmacies will apply to continue with the program every 2 years.</td>
</tr>
<tr>
<td>9.</td>
<td>Program evaluation  A comprehensive evaluation of the Bloom Program.</td>
</tr>
</tbody>
</table>

**Pharmacy participation**

**i. Pharmacy recruitment process**

Several methods were used to identify pharmacies to participate. Invitation went to community pharmacists who participated in More Than Meds project in the spring of 2014 and community pharmacists known to be interested in mental illness and addictions care were also informed of the opportunity to participate. This helped to establish the first round of nine pharmacies from across the province to complete the full nine-step application process (see below) by the fall of 2014. The project leads also met with staff in the Department of Health and Wellness to identify preferred locations in the province for which the service could be offered. Opportunities to participate were also extended through the Pharmacy Association of Nova Scotia: the annual conference and the weekly e-newsletter. Interested pharmacies could complete an expression of interest form on the Bloom Program website and pharmacists were encouraged to contact the project leads or program coordinator.

The initial objective was to recruit 20 pharmacies and this target was increased slightly as the program’s implementation evolved. A total of 28 pharmacies completed the application process and were approved to offer the Bloom Program at their pharmacies. When patient enrolment was put on hold on June 30, 2016, there were 23 pharmacies offering the program in their communities. Five pharmacies had withdrawn from the program: two pharmacies withdrew within months of their approval to offer the program primarily due to difficulties with patient recruitment; two other pharmacies stopped offering the program because of a change in service focus; and, the fifth pharmacy closed its business. One of the 23 active pharmacies had not yet enrolled any patients when the evaluation process had started. **Figure 4** provides a timeline of Bloom Program pharmacy participation.
**Figure 4:** Bloom Program pharmacy participation timeline
ii. Pharmacy application process

Pharmacists who were interested in delivering the Bloom Program had to first complete an application process consisting of nine required activities. Once all of these activities were successfully completed, a pharmacy was considered to have met the eligibility criteria and given permission by the program implementation team to begin to accept patients. The following is an abridged checklist of the eligibility requirements. A more detailed description of each can be found in Appendix C.

**Bloom Program pharmacy requirements**

☑ Conduct local environmental scan
☑ Demonstrate links with local mental health and addictions support groups
☑ Provide a mental health and addictions resource centre within the pharmacy
☑ Inform local health providers about the Bloom Program at your pharmacy
☑ Inform the public that the Bloom Program is available at your pharmacy
☑ Maintain an in-pharmacy health professional library
☑ Participate in comprehensive live training of a nominated Bloom pharmacist lead
☑ Complete training of other pharmacy staff
☑ Establish policies and procedures within the pharmacy related to the Bloom Program

Completion of these activities was part of the program’s quality control process in that it helped ensure that a pharmacy was fully prepared to deliver the program once it was approved. Key themes among the requirements were the demonstration of the pharmacist’s familiarity with local mental health and addictions services and supports that they could direct and/or refer Bloom Program patients to in order to support patient outcomes; conducting outreach activities with local services and supports to inform them of the Bloom Program and to lay the groundwork for increased patient-centered collaborative practice; and, participation in Bloom Program training.

Each pharmacy was also required to have an in-house professional library of essential mental health and addictions and psychotropic resources, as well as one for patients (pamphlets and other information about local services and supports) to support patient medication education and navigation of the mental health and addictions system.

iii. Pharmacist training

Part of the application was a requirement that all lead Bloom Program pharmacists participate in a full-day training session that consisted of an in-depth review of program policies and procedures and several interactive sessions with expert pharmacists, people with lived experience of a mental illness and addictions, psychiatrists, and simulated patient scenarios over several patient-pharmacist interactions. An agenda of the training can be found in Appendix D. Pharmacists and pharmacy staff also had access to a comprehensive set of readings and online videos throughout the project period. During the project period two training sessions were held.
After the training, each Bloom Program pharmacist was expected to fully orient other pharmacists, dispensary staff, and store employees at their respective pharmacies to ensure that staffs were fully functional with the clinical and procedural expectations of the Program.

**Quality assurance**

The Bloom Program built quality assurance measures into the program design to ensure patients received safe, high quality program services and supports. Quality assurance activities included audits, site visits, annual reports, and bi-annual renewal applications. During the site visits, the program coordinator checked to ensure pharmacies were complying with practices outlined in the Bloom Program Pharmacy Procedure Manual and fully functional with the clinical and procedural expectations. All interactions with Bloom Program patients and health care providers had to be documented in Progress Notes in each patient’s chart.

Pharmacies were also required to supply a copy of their most recent Nova Scotia College of Pharmacists’ (NSCP) audit to the coordinator as part of the quality assurance process.

A diagram outlining the Bloom Program audit process can be found in Appendix E. During the project period, each pharmacy received one on-site audit.

**Patient care in the Bloom Program**

After pharmacies received approval to deliver the Bloom Program they could enroll patients and deliver the program’s services and supports. This section provides details on some of the key patient care processes in the program, which consist of: 1) enrolment, 2) assessment, 3) follow-up, and 4) discharge (see Figure 5).

*Figure 5: Patient care flow in the Bloom Program*
Eligibility, referral and enrolment

Bloom Program patients can self-refer or be referred by another person such as a family member, a pharmacist or other health care professional, or someone from a community organization. The pharmacist takes the time to explain the program to the patient and if there is interest, an Enrolment Form (Appendix F) is completed.

To ensure equity in access to the program, all individuals living within Nova Scotia with a Nova Scotia health card were eligible for the program. The program did not limit access by age or any other pre-set criteria.

In order to be accepted into the program, the patient must meet two criteria. First, they must have one or more mental health or addictions disorder diagnosis that could be either high priority diagnoses (recommended) or ‘other’ diagnoses. Second, they must identify one or more medication management issues that they would like to work on while in the Bloom Program. A list of diagnoses and medication management issue categories is provided in Table 7. A detailed description of Bloom Program patient diagnoses can be found in Table 10, p. 26. A detailed description of the medication issues identified by patients at Bloom Program enrolment can be found in Table 11, p. 27.

Several factors were considered when selecting diagnoses to include. They are: 1) the illness results in functional impairment; 2) the illness has a large impact on personal and family functioning and brings about a substantial social and economic cost at a population level; 3) the illness is commonly treated with and responsive to pharmacotherapy; 4) achieving optimal pharmacotherapy outcomes is frequently challenging (e.g., non- or partial-response, adverse effects, drug interactions, withdrawal syndromes upon treatment termination); and 5) pharmacists have the knowledge and skills to support resolving illness and pharmacotherapy issues.

To assure that the target population of the Bloom Program (i.e., those living with a serious mental illness) were able to access the service, pharmacists were directed to have a case mix of ≥70% of participants with high priority diagnosis and ≤30% with the “other” diagnoses. Patients with an addiction disorder would have to have a concurrent mental health disorder9 and all patients had to have one or more medication management issues that were deemed by the pharmacist to have the potential to be reasonably addressed by participating in the program.

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9 For example, if a patient was addicted to opiates and was being treated with methadone, they would also have to have a mental health diagnoses (self identified) in order to be eligible for the Bloom Program.
Table 7: Eligibility criterion for Bloom patient enrolment

<table>
<thead>
<tr>
<th>High priority diagnoses:</th>
<th>Medication therapy issue:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Psychosis</strong> (e.g., schizophrenia, unspecified psychosis)</td>
<td><strong>Treatment optimization</strong>: Following a standard trial of recent mental health/addictions pharmacotherapy, there is non-response or partial response requiring change in pharmacotherapy;</td>
</tr>
<tr>
<td><strong>Bipolar</strong> and related disorders (e.g., bipolar disorder types 1 and 2)</td>
<td><strong>Treatment adverse effect</strong>: Experiencing a treatment-limiting adverse effect to current mental health or addictions medication(s) requiring change in pharmacotherapy;</td>
</tr>
<tr>
<td><strong>Depressive</strong> disorders (e.g., major depressive disorder)</td>
<td><strong>Non-adherence</strong>: Medication refusal or non-adherence leading to a current or a near-recent decompensation of mental illness or addiction.</td>
</tr>
<tr>
<td><strong>Anxiety</strong> disorders (e.g., social anxiety disorder, panic disorder)</td>
<td><strong>Medication withdrawal</strong>: Difficulty tapering and stopping treatment for a mental health or addictions problem in a stable patient.</td>
</tr>
<tr>
<td><strong>Obsessive-compulsive</strong> and related disorders (e.g., OCD, body dysmorphic disorder)</td>
<td><strong>Inappropriate polytherapy</strong>: Taking multiple medications, including psychotropics and non-psychotropics, that is causing functional impairment requiring modifications including medication discontinuation(s) on the basis of safety, redundancy, and absence of indication.</td>
</tr>
<tr>
<td><strong>Trauma</strong> and stress related disorders (e.g., post-traumatic stress disorder)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other diagnoses:</strong></td>
<td></td>
</tr>
<tr>
<td>Feeding and eating disorders (e.g., anorexia nervosa, bulimia nervosa)</td>
<td></td>
</tr>
<tr>
<td><strong>Sleep-wake</strong> disorders (e.g., insomnia disorder with episodic, persistent, or recurrent specifier (excluded is acute insomnia), narcolepsy, circadian rhythm sleep-wake disorders)</td>
<td></td>
</tr>
<tr>
<td><strong>Personality</strong> disorder (e.g., borderline personality disorder)</td>
<td></td>
</tr>
<tr>
<td><strong>Neurodevelopmental</strong> disorders (e.g., intellectual disability disorder, Autism, attention-deficit/hyperactivity disorder, tic disorder)</td>
<td></td>
</tr>
<tr>
<td><strong>Disruptive</strong>, impulse-control, and conduct disorders (e.g., oppositional defiant disorder, intermittent explosive disorder, conduct disorder)</td>
<td></td>
</tr>
<tr>
<td><strong>Substance</strong>-related and addictive disorders (e.g., alcohol use disorder; sedative, hypnotic, or anxiolytic use disorder)</td>
<td></td>
</tr>
</tbody>
</table>

Assessment and care planning

If the patient meets program criterion, a one-hour assessment appointment is scheduled where the pharmacist completes a comprehensive medical history with the client, including documentation of all patient medications (see Assessment Form, Appendix G). The patient identifies any medication management issues they would like to see improved or resolved, with a focus on mental health and addictions but including any relevant physical health problem(s). The pharmacist then works with the patient to develop a care plan that is based on the client’s priorities. This initial assessment appointment sets the stage for what the patient will work on in the Program with the support of the pharmacist. These care plans are flexible and can be adjusted depending on progress made or challenges encountered throughout the treatment period.

At the assessment appointment, the pharmacist and patient establish a schedule of visits. The frequency, duration, and focus of subsequent appointments are determined by patient need and can range from monthly to biweekly or weekly. It is expected that as the patient makes progress in their care plan, meetings will become more infrequent. Consultations typically take place in private patient
consultation rooms at the pharmacy\textsuperscript{10} but they can also take place off-site (i.e. nursing homes, treatment centers, the patient’s own residence) and by telephone. Patients are encouraged to drop by the pharmacy, or call the pharmacist, if they have any questions or concerns.

**Patient care follow-up**

After the initial comprehensive assessment, the patient spends his/her remaining time in the Bloom Program working with the pharmacist to address their self-identified medication management issue(s). This is generally accomplished by the pharmacist communicating and collaborating with other health care providers to implement any medication management changes required and to support the patient to navigate the mental health and addictions system so that they can more easily access the services and supports they need. The time period for this part of the program is patient specific but it can range from several weeks to six months. Patients would generally see the pharmacy’s lead Bloom pharmacist but when s/he was not available patients could speak with other pharmacy dispensary staff who would communicate with the patient’s primary Bloom Program pharmacist, directly or via documentation in the patient’s chart.

**Communication and collaboration**

Communications and collaboration with other health care providers in the patient’s self-identified circle of care is a key component of the Bloom Program. Pharmacists are viewed as part of a patient’s broader health care team that will have the greatest impact on improving a patient’s outcomes when they are effectively communicating and consistently collaborating as needed.

During the assessment appointment, the patient completes a Contact Preferences Form (Appendix H) that lists other people that the pharmacist can contact. The pharmacist makes it clear that he/she will be working with these health care providers to address the patient’ identified medication issues. Key contacts are the patient’s family physician and a psychiatrist and/or mental health and addictions counsellor that the patient may be seeing. Ongoing communication and collaboration is expected throughout the patient’s involvement in the program.

**Navigation support**

Navigating the mental health and addictions systems can be very challenging for people living with mental health and addictions problems. As such, Bloom Program pharmacists are expected to support patients to navigate these systems and sometimes act in an advocacy role on behalf of the patient to resolve medication management issues. The Bloom Program pharmacist is expected to be knowledgeable about local mental health and addictions services and supports. In addition to providing a resource library in the pharmacy with information about local services, the pharmacist is able to suggest/recommend and potentially refer the patient to appropriate services.

\textsuperscript{10} All Bloom Program pharmacies must have a separate patient consultation room.
Medication education

Bloom Program patients typically take one or more psychotropic\textsuperscript{11} medications to treat the mental illness(es) they are living with. An important part of the Bloom Program is for the pharmacist to take the time to educate patients about the medications they are taking in the context of addressing patient-identified medication management issues. It is expected that providing this education will increase medication awareness and knowledge and help support the patient to take a more active role in managing their mental illness and addiction(s).

Monitoring and documentation

Monitoring patient progress is an important part of the program’s quality assurance measures. Scheduling regular consultations for the six-month program period allows for regular monitoring of medication changes outcomes and patient health generally. Pharmacists document each patient encounter in formal Progress Notes (Appendix I), identifying the purpose of the visit and the outcome. Progress Notes include documentation of any attempts to contact the patient, knowledge acquisition, paperwork and information and resource preparation, and contacts with other care providers such as family physicians and psychiatrists, and the outcomes thereof.

Discharge

Patients can stay in the Bloom Program for up to six months at which point they will be automatically discharged. This time period was felt to be reasonable for most medication management issues to be improved or resolved. The pharmacist completes a Discharge Form (Appendix J) and identifies patient program outcomes and any significant events during enrolment are documented. If the patient requests more time and the pharmacist feels this will help resolve the medication management issue(s), an application for six-month extension can be submitted to the Bloom Program management.

\textsuperscript{11} Related to a person’s mental health.
Evaluation of the Bloom Program

Monitoring and evaluation of the Bloom Program demonstration project was viewed as critical to successful implementation, quality assurance, and most importantly, determination of whether the program was feasible to operate in the Nova Scotia context. This report presents the findings for an outcome evaluation of the program. It also presents feedback from patients, physicians and pharmacists on how the program could be improved. Should the program be expanded, a process evaluation can be completed on data that has already been collected.\(^\text{12}\)

An Evaluation Advisory Committee was formed in the fall of 2015 to provide direction for the evaluation framework and to review the logic model and data collection tools (surveys and interview guides). The Committee provided feedback on the draft evaluation report. A list of member names and associated organizations can be found in Appendix A.

Evaluation purpose

Because the Bloom Program is a demonstration project, this evaluation is an opportunity to learn about how community pharmacies can play an enhanced role in supporting people living with mental health and addictions problems in this province.

The primary purpose of this evaluation, however, is to provide the Nova Scotia Department of Health and Wellness and the Nova Scotia Health Authority with information about the impact of the Bloom Program that will help them determine whether it should be expanded and integrated into the existing mental health and addictions system. This evaluation has a companion document that provides financial analysis of the program that will help in this decision-making.

Program logic model

A logic model is a useful planning tool that visually depicts a program’s theory of change. Several iterations of the Bloom Program logic model were developed as the program evolved. Appendix K depicts the Bloom Program Logic Model that was approved by the Steering Committee during the program’s implementation stage. Appendix L provides a revised patient outcome logic model that was developed prior to data collection and analysis for this outcome evaluation.

Program outcomes measured

As depicted in the revised logic model, the Bloom Program identified expected program outcomes that focused on three stakeholders: program participants (people living with mental health and/or addictions problems), pharmacists, and the Nova Scotia mental health and addictions system (system level

\(^{12}\) Outcome evaluations should ideally follow process evaluations that identify areas for program improvements. Once these improvements are made, program decision-makers and staff feel confident that activities are being implemented as intended and an outcome evaluation can determine if the program’s theory of change is correct. Conducting both types of evaluations, however, is rarely feasible in short-term demonstration projects that include an implementation period.
outcomes). This evaluation focused primarily on patient outcomes, which are linked to system-level outcomes.

The short-term outcomes measured in this evaluation were expected to occur during the patient’s enrolment in the program. They are as follows:

1. Patients have:
   A. increased access to mental health and addictions services and supports in their community
   B. increased access to pharmacists
   C. increased knowledge and awareness of medications and health
   D. increased support to navigate the health system
   E. increased awareness of community resources

2. Medication and other related health issues are identified and acted upon.

3. Pharmacists and physicians are communicating about patient care.

The intermediate outcomes measured in this evaluation were expected toward the end of a patient’s participation in the program and at program completion.

1. Patients are able to access available services and supports important for their care and wellbeing.
2. Health and medication issues are better managed and/or resolved.
3. Care providers are collaborating to meet patient’s needs.
4. Patients are more aware of the pharmacist role in mental health and addictions.

**Methodology**

The Bloom Program evaluation used a mixed-methods approach to measure outcomes. Qualitative and quantitative data collection methods were used to gather information from the primary data sources: patients, pharmacists and pharmacy staff, and physicians (family physicians and psychiatrists). A summary of the methods, sources and sample sizes is provided in Table 8.

**Administrative data**

**Patient charts**

Data collected in patient charts, including Progress Notes, was abstracted and analyzed for descriptive statistics (including frequencies and means) by the program leads and Dalhousie University students using SPSS and Microsoft Office Excel.

A Privacy Impact Assessment was completed for the NS Department of Health and Wellness to ensure data collected was abstracted securely and handled in a safe and conscientious manner.

**Program data**

Program data was collected and analyzed on an ongoing basis by the program coordinator such as number of participating pharmacies, data related to training, outreach activities, etc.
Table 8: Evaluation data collection methods, sources, and sample sizes

<table>
<thead>
<tr>
<th>Data collection method</th>
<th>Source</th>
<th>Sample size (n)</th>
<th>Time period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative data</td>
<td>Patients</td>
<td>201 (total patient charts)</td>
<td>Ongoing</td>
</tr>
<tr>
<td>(patient charts)</td>
<td></td>
<td>46 (discharged patient charts)</td>
<td>May-August 2016</td>
</tr>
<tr>
<td>Administrative data</td>
<td>Pharmacies</td>
<td>23</td>
<td>Ongoing</td>
</tr>
<tr>
<td>(program data)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surveys</td>
<td>Patients</td>
<td>36</td>
<td>March – June 2016</td>
</tr>
<tr>
<td></td>
<td>Pharmacy staff</td>
<td>25 (7 non-pharmacists)</td>
<td>March – June 2016</td>
</tr>
<tr>
<td></td>
<td>(pharmacists &amp; pharmacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>technicians and assistants)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physicians</td>
<td>11</td>
<td>March – June 2016</td>
</tr>
<tr>
<td></td>
<td>Community organizations</td>
<td>28</td>
<td>June 2016</td>
</tr>
<tr>
<td>Key informant interviews</td>
<td>Patients</td>
<td>10</td>
<td>May-June 2016</td>
</tr>
<tr>
<td></td>
<td>Pharmacists</td>
<td>21 (representing 20 pharmacies)</td>
<td>February 2016</td>
</tr>
<tr>
<td></td>
<td>Physicians</td>
<td>10</td>
<td>June 2016</td>
</tr>
</tbody>
</table>

**Surveys**

All Bloom Program patients, pharmacists and pharmacy staff, physicians who had a Bloom Program patient, and community organizations were invited to complete a brief program survey that consisted of closed and open-ended questions. Patients were contacted and invited to complete either an on-line or paper survey. Pharmacists and pharmacy staff were sent a link to the survey. Doctors Nova Scotia also circulated a link to the survey through their member listserv and on their Website. Links to all surveys were also posted on the Bloom Program website.

The Evaluation Advisory Committee reviewed the surveys before they were finalized.

Descriptive statistics (including frequencies and means) were calculated and analyzed by the program leads and Dalhousie University students using Microsoft Office Excel.

Survey respondents (patients, pharmacists and physicians) were invited in the survey to provide contact information if they wanted to participate in a follow-up interview.
Interviews

All Bloom Program patients, pharmacists and physicians who had Bloom Program patients, were invited to participate in a semi-structured interview. For physicians, a list of names of family physicians and psychiatrists who had Bloom Program patients was provided to the evaluator by Bloom Program pharmacists. All physicians on this list (n=26) were contacted by telephone and/or email and invited to participate. Several physicians responded but were not available for an interview.

<table>
<thead>
<tr>
<th>Physician interview requests and completions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contacted and invited</td>
</tr>
<tr>
<td>Completed interviews</td>
</tr>
<tr>
<td>No time for an interview</td>
</tr>
<tr>
<td>Supports program but no time for an interview</td>
</tr>
<tr>
<td>Not aware of the Bloom Program</td>
</tr>
<tr>
<td>No response to interview request</td>
</tr>
</tbody>
</table>

All lead Bloom pharmacists were invited to participate in an interview. In some cases the pharmacist was also the owner of the pharmacy.

Participation in all interviews was voluntary and all participants were asked to provide verbal consent to participate and for the interview to be audio-recorded and transcribed for analysis. Most interviews were conducted by telephone and lasted between 30-60 minutes for patients and pharmacists and between 10-30 minutes for physicians. Patients were offered $40.00 as honoraria and physicians were offered $100.00.

Interview guides were reviewed by the Evaluation Advisory Committee and interviews were conducted by the Bloom Program evaluators and the program coordinator. Data was analyzed by the program evaluators and the program leads using the NVivo qualitative data analysis software. All transcripts were coded using an evolutionary coding structure in NVivo. High level coding nodes were specified to correspond to the intended outcomes of the Bloom Program. Sub-themes within each outcome node emerged as the data was analyzed and nodes were created as necessary. Qualitative survey data corresponding to the outcomes were included in the interview data for analysis.

Limitations

Implementation of a real world complex intervention such as the Bloom Program in an environment in which multiple and substantial changes are underway create a challenge for an outcomes evaluation. Our mixed model approach relies on evaluating multiple outcomes, primarily short and intermediate term, triangulating our data where possible to assess the validity of the findings. The sample size and length of this demonstration project are not sufficient for a formal, traditional economic evaluation. To ensure that the program was practical and acceptable to pharmacists and patients a flexible evaluation framework was developed. A more rigorous and less flexible intervention research study was neither
feasible, practical, nor affordable. Such studies typically fail to identify what is important in terms of the fidelity of an intervention when the intervention itself is complex.

**Expectations**

A specific challenge of evaluating the impact of the Bloom Program is to measure its impact on people who are no longer in the program or who were never in the program. A unique aspect of the Bloom Program is that patients continue to have access to care immediately after being discharged from the program by the same care providers – the patient’s pharmacy team; continuity is therefore not lost, which is different from some other mental health and addictions services.

Patients are expected to have an improved pharmacist-patient relationship after they leave the program compared to the relationship before entering the program. The pharmacist is expected to be more effective in supporting that patient in accessing care, identifying and addressing health and medication issues, collaborating with other members of the patient’s health team, and in supporting efficiencies in the health system.

It is also expected that the program will benefit people with mental health and addictions issues who access pharmacies that offer the Bloom Program but who are not enrolled in the program. By participating in the Bloom Program, pharmacists will be more knowledgeable of local resources, supports, and services as well as medication and health issues relevant to people living with mental health and addictions problems generally. **Figure 6** represents the three patient groups that are expected to benefit from a pharmacy offering the Bloom Program.

**Figure 6:** Mental health and addictions patient groups expected to benefit from the Bloom Program
Evaluation findings

Description of Bloom Program pharmacies

A total of 23 pharmacies participated in the Bloom Program demonstration project representing rural and urban communities located throughout Nova Scotia. Table 9 provides information about the participating pharmacies. Figure 7 shows where the pharmacies are located in the province and Box A indicates which locations were classified as urban and rural.

Table 9: Description of pharmacies approved to offer the Bloom Program

<table>
<thead>
<tr>
<th>Nova Scotia health management zones</th>
<th>Approved</th>
<th>Active</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Northern</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Eastern</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Central</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>28</strong></td>
<td><strong>23</strong></td>
</tr>
</tbody>
</table>

Type of pharmacy*

- Independent: 23, 20
- Corporate/franchise: 5, 3

Location of pharmacy

- Rural: 16, 13
- Urban: 12, 10

*The following banners were classified as independently owned pharmacies: Compass, Guardian, the Medicine Shoppe, Pharmachoice, and Pharmasave. Shoppers Drug Mart, Sobeys/Lawtons, and Target pharmacies were classified as corporate/franchise pharmacies.

Figure 7: Map of Bloom Program pharmacies in Nova Scotia
**Box A: Bloom Program pharmacy locations**

<table>
<thead>
<tr>
<th>Rural communities (13)</th>
<th>Urban communities (10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amherst</td>
<td>Bridgetown</td>
</tr>
<tr>
<td>Antigonish</td>
<td>Cheticamp</td>
</tr>
<tr>
<td>Aylesford</td>
<td>Digby</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Dartmouth</td>
<td>North Sydney</td>
</tr>
<tr>
<td>Halifax (5)</td>
<td>Sydney</td>
</tr>
</tbody>
</table>

**Patient demographics**

As of June 30, 2016, 221 patients had enrolled in the Bloom Program. The first patient was enrolled on September 20, 2014. Pharmacists were asked not to enrol any patient after June 30, 2016. **Table 10** provides demographic information about the Bloom Program patients. **Table 11** and **Figure 8** provide details on the health status of Bloom Program patients upon their enrolment in the program.

For patients with one or more follow-up visits (n=182), the majority were female (62.6%), living with family and friends (64.8%), and either married/common-law (41.2%) or single (38.5). There was a mix between unemployed (47.8%) and employed (37.5%) as well as across education levels. Most were covered by public (47.8%) or private (38.5%) insurance.

Bloom Program patients closely mirrored the characteristics of the mental health population in Nova Scotia. Anxiety (69%), depression (63%), and sleep disorders (36%) were the most frequent patient-identified mental health problems, followed by substance use disorders (16%), PTSD (14%), and bipolar disorder (11%). The most commonly used medications were antidepressants (72%), benzodiazepines and related drugs (53%), and antipsychotics (29%); 68% of patients were taking multiple psychotropics. Physical health problems (e.g. pain & neurological disorders: 38%; cardiovascular disease: 28%) were prevalent: 71% of the participants were taking multiple physical health medications. Overall, Bloom Program patients were taking an average of 5.5 prescribed medications (range 0 to 24). Use of nicotine (39%), alcohol (38%), and marijuana (18%) were common. Most patients (81%) enrolled in the program to work with their pharmacist to optimize their medication regimen in order to achieve improved symptomatic and functional health outcomes. In addition, 24% identified managing adverse effects and 13% identified seeking help with discontinuing medication as reasons for enrollment.
Table 10: Demographics of Bloom Program patients

<table>
<thead>
<tr>
<th></th>
<th>All patients (n=201)</th>
<th>Patients with ≥1 follow-up visit (n=182)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Age (mean, SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>48.1</td>
<td>15.7</td>
</tr>
<tr>
<td>Sex - Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Female</td>
<td>120</td>
<td>59.7</td>
</tr>
<tr>
<td>- Male</td>
<td>81</td>
<td>40.3</td>
</tr>
<tr>
<td>Living situation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family/friends</td>
<td>131</td>
<td>65.2</td>
</tr>
<tr>
<td>Alone</td>
<td>47</td>
<td>23.4</td>
</tr>
<tr>
<td>Group home</td>
<td>7</td>
<td>3.5</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>2.0</td>
</tr>
<tr>
<td>Unknown</td>
<td>12</td>
<td>6.0</td>
</tr>
<tr>
<td>Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married/common law</td>
<td>83</td>
<td>41.3</td>
</tr>
<tr>
<td>Single</td>
<td>75</td>
<td>37.3</td>
</tr>
<tr>
<td>Separated/divorced</td>
<td>25</td>
<td>12.4</td>
</tr>
<tr>
<td>Unknown</td>
<td>18</td>
<td>9.0</td>
</tr>
<tr>
<td>Dependents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>72</td>
<td>35.8</td>
</tr>
<tr>
<td>Occupational status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>71</td>
<td>35.3</td>
</tr>
<tr>
<td>Unemployed</td>
<td>99</td>
<td>49.3</td>
</tr>
<tr>
<td>School</td>
<td>11</td>
<td>5.5</td>
</tr>
<tr>
<td>Unknown</td>
<td>20</td>
<td>10.0</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>27</td>
<td>13.4</td>
</tr>
<tr>
<td>High school</td>
<td>46</td>
<td>22.9</td>
</tr>
<tr>
<td>College/university</td>
<td>65</td>
<td>32.3</td>
</tr>
<tr>
<td>Unknown</td>
<td>63</td>
<td>31.3</td>
</tr>
<tr>
<td>Medication coverage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public insurance</td>
<td>96</td>
<td>47.8</td>
</tr>
<tr>
<td>Private insurance</td>
<td>78</td>
<td>38.8</td>
</tr>
<tr>
<td>Cash</td>
<td>20</td>
<td>10.0</td>
</tr>
<tr>
<td>Unknown</td>
<td>7</td>
<td>3.5</td>
</tr>
<tr>
<td>Physician care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family physician</td>
<td>188</td>
<td>93.5</td>
</tr>
<tr>
<td>Psychiatrist</td>
<td>66</td>
<td>32.8</td>
</tr>
<tr>
<td>None</td>
<td>9</td>
<td>4.5</td>
</tr>
</tbody>
</table>
Table 11: Health status at enrolment into Bloom Program

<table>
<thead>
<tr>
<th></th>
<th>All patients (n=201)</th>
<th>Patients with ≥1 follow-up visit (n=182)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Number of stated health problems</td>
<td>2.7</td>
<td>1.4</td>
</tr>
<tr>
<td>n</td>
<td>201</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Participants with mental health and addictions problems</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychotic disorder</td>
<td>13</td>
<td>6.5</td>
</tr>
<tr>
<td>Bipolar disorder</td>
<td>23</td>
<td>11.4</td>
</tr>
<tr>
<td>Depressive disorder</td>
<td>126</td>
<td>62.7</td>
</tr>
<tr>
<td>Anxiety disorder</td>
<td>139</td>
<td>69.2</td>
</tr>
<tr>
<td>Obsessive compulsive disorder</td>
<td>15</td>
<td>7.5</td>
</tr>
<tr>
<td>Post-traumatic stress disorder</td>
<td>29</td>
<td>14.4</td>
</tr>
<tr>
<td>Eating disorder</td>
<td>8</td>
<td>4.0</td>
</tr>
<tr>
<td>Insomnia or other sleep disorder</td>
<td>72</td>
<td>35.8</td>
</tr>
<tr>
<td>Personality disorder</td>
<td>11</td>
<td>5.5</td>
</tr>
<tr>
<td>ADHD</td>
<td>13</td>
<td>6.5</td>
</tr>
<tr>
<td>Disruptive behaviour disorder</td>
<td>6</td>
<td>3.0</td>
</tr>
<tr>
<td>Substance use disorder</td>
<td>32</td>
<td>15.9</td>
</tr>
<tr>
<td>Number of mental health and addictions problems</td>
<td>487</td>
<td></td>
</tr>
<tr>
<td><strong>Participants with physical health problems</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain and neurological disorders</td>
<td>77</td>
<td>38.3</td>
</tr>
<tr>
<td>Cardiovascular disease</td>
<td>56</td>
<td>27.9</td>
</tr>
<tr>
<td>Gastrointestinal disorders</td>
<td>29</td>
<td>14.4</td>
</tr>
<tr>
<td>Endocrine disorders</td>
<td>27</td>
<td>13.4</td>
</tr>
<tr>
<td>Respiratory disorders</td>
<td>21</td>
<td>10.4</td>
</tr>
<tr>
<td>Other</td>
<td>47</td>
<td>23.4</td>
</tr>
<tr>
<td>Number of physical health problems</td>
<td>257</td>
<td></td>
</tr>
<tr>
<td><strong>Substance use</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nicotine</td>
<td>78</td>
<td>38.8</td>
</tr>
<tr>
<td>Alcohol</td>
<td>75</td>
<td>37.3</td>
</tr>
<tr>
<td>Marijuana</td>
<td>36</td>
<td>17.9</td>
</tr>
<tr>
<td>Opiates</td>
<td>23</td>
<td>11.4</td>
</tr>
</tbody>
</table>
The Bloom Program aimed to identify people living with mental illness and addictions who could directly benefit from the care provided by community pharmacists working collaboratively with patients and members of their health care teams. Qualifying diagnoses for the program were identified based on their prevalence and, most importantly, their association with psychotropic pharmacotherapy for which treatment failure, adverse effects, misinformation, and non-adherence are common issues.

It is difficult to determine with certainty how well the sample of patients entering the Bloom Program match the prevalence of those in need of this level of service. We found that anxiety and depression were the most prevalent diagnoses (63-69%) with insomnia also common (36%). Less frequent were substance use disorder (16%), PTSD (14%), and bipolar disorder (11%). The prevalence of the remaining diagnoses was each less than 10% in the cohort.

In their work measuring the rates of treated psychiatric disorders, Kisely and colleagues determined that ~15.7% of the population of Nova Scotia receive mental health care each year based on physician billing codes. Similar to our findings, 63% (9.9%) of this group was diagnosed with depression or anxiety. The prevalence rates of care provided by physicians for people with other diagnoses are not available.

---

Table 12: Medication issues at Bloom Program enrolment

<table>
<thead>
<tr>
<th>Medication issues</th>
<th>All patients (n=201)</th>
<th>Patients with ≥1 follow-up visit (n=182)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mediation issues</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Treatment optimization</td>
<td>162</td>
<td>80.6</td>
</tr>
<tr>
<td>Adverse effects</td>
<td>49</td>
<td>24.4</td>
</tr>
<tr>
<td>Non-adherence</td>
<td>22</td>
<td>10.9</td>
</tr>
<tr>
<td>Medication withdrawal</td>
<td>27</td>
<td>13.4</td>
</tr>
<tr>
<td>Inappropriate polytherapy</td>
<td>12</td>
<td>6.0</td>
</tr>
<tr>
<td>Medications</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Antidepressants</td>
<td>145</td>
<td>72.1</td>
</tr>
<tr>
<td>Benzodiazepines-Z drugs</td>
<td>107</td>
<td>53.2</td>
</tr>
<tr>
<td>Antipsychotics</td>
<td>58</td>
<td>28.9</td>
</tr>
<tr>
<td>Mood stabilizers</td>
<td>21</td>
<td>10.4</td>
</tr>
<tr>
<td>Psychostimulants</td>
<td>12</td>
<td>6.0</td>
</tr>
<tr>
<td>Other Psychotropics</td>
<td>13</td>
<td>6.5</td>
</tr>
<tr>
<td>Opioids</td>
<td>24</td>
<td>11.9</td>
</tr>
<tr>
<td>Opioid replacement therapy</td>
<td>15</td>
<td>7.5</td>
</tr>
<tr>
<td>Multiple psychotropic medications</td>
<td>136</td>
<td>67.7</td>
</tr>
<tr>
<td>No psychotropic medications</td>
<td>9</td>
<td>4.5</td>
</tr>
<tr>
<td>≥1 physical health medications</td>
<td>142</td>
<td>70.6</td>
</tr>
<tr>
<td>Mean SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of current medications</td>
<td>5.4</td>
<td>4.0</td>
</tr>
<tr>
<td>Range of current medications</td>
<td>0 to 24</td>
<td></td>
</tr>
</tbody>
</table>
The majority of patients were using multiple psychotropic and multiple physical health medications at enrolment. See Table 12 (p. 29) and Figure 9. The average patient was taking more than 5 medications. Antidepressants, sedative-hypnotics, and antipsychotics were the most commonly used medications, with opioids, mood stabilizers and psychostimulants also used by patients entering the Program. Additionally, more than 70% were using multiple medications for various physical health problems. Not unexpectedly, patients entering the program were taking multiple medications and not achieving the intended benefits.

**Program data**

**Referral Sources**

Referral to the Bloom Program was open to anyone. As seen in Figure 10, the majority of patients enrolled in the program were informed of and referred to the program by a pharmacist offering the program at their pharmacy. Family physicians and psychiatrists collectively referred one in every six people that enrolled in the program. Family and friends and mental health and addictions organizations referred a smaller number of patients to the program. It is expected that the referral pattern will evolve as the program becomes more established and well known in a community.
Program completion

The chart data analysis estimated the average time in the program for those patients who were formally discharged using the program’s discharge form (n=46). Median duration of enrolment in the program, from enrolment to discharge date, was six months (183 days, IQR: 155, 247). Another 11 patients were assumed discharged at the time of chart review based on a documented plan to discharge the patient followed by at least three months of inactivity. Just below 30% of patients were lost to follow-up, early or late, during their participation in the program. One elderly medically unwell patient (cardiovascular disease, diabetes, hypertension, COPD, underweight, depression, anxiety, polypharmacy) died shortly after enrolling in the program. A full account of patient disposition based on the 201 charts reviewed is provided in Table 13.
<table>
<thead>
<tr>
<th>Disposition</th>
<th>Number of patients (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Still in program</td>
<td>84 (41.8%)</td>
</tr>
<tr>
<td>Discharged using discharge form</td>
<td>46 (22.9%)</td>
</tr>
<tr>
<td>Assumed discharged (documented discharge plan with &gt;3 months of inactivity)</td>
<td>11 (5.5%)</td>
</tr>
<tr>
<td>Early loss to follow-up (&lt;3 months in program)</td>
<td>37 (18.4%)</td>
</tr>
<tr>
<td>Late loss to follow-up (&gt;3 months in program without documented activity or planned discharge)</td>
<td>22 (11%)</td>
</tr>
<tr>
<td>Deceased</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>201 (100%)</strong></td>
</tr>
</tbody>
</table>

*Date of first patient enrolment: 20-Sep-2014. Date of last patient enrolment 08-Mar-2016*
Outcome 1: Access and Navigation

Short-term outcomes
- Patients have increased access to pharmacists
- Patients have increased access to mental health and addictions services and supports in their community
- Patients have increased support to navigate the health system
- Patients are more aware of community resources

Intermediate outcomes
- Patients are able to access available supports and services important for their wellbeing and care

Evaluation questions
- To what extent did Bloom Program patients have increased access to mental health and addictions care and supports in the community as a result of participating in the program?
- To what extent did the Bloom Program support patients to navigate the health system and was access to these services linked to improved wellbeing and care?

Key findings
- Overall, the Bloom Program increased patient access to pharmacy-based, medication-focused mental health and addictions services and supports. This was achieved as a result of several factors related to the current mental health and addictions system and patient needs.

- Bloom Program patients had increased access to pharmacists who, as a result of the program, were able to dedicate more time to helping patients address medication management issues. Support was provided by accessing pharmacists through scheduled patient/pharmacist meetings (in-person or via telephone) as well as informal drop-in support.

- The Bloom Program helped address some of the current gaps that exist in mental health and addictions care by providing patients with services and supports while they were waiting for other services, and by offering the program outside of typical service hours (i.e. evenings and weekends).

- The Bloom Program also increased the range of mental health and addictions care options for patients who were not accessing other services and supports.

- Patients identified and expressed their appreciation for the general psychological and emotional support provided to them by their pharmacist. Often this was in the context of the patient not being able to access local mental health and addictions care in their community, particularly in rural communities. Many participants said that they valued this aspect of the program most.
• Pharmacists helped Bloom Program patients navigate the health system generally and this activity helped them access other mental health, addictions and general health care. Through the Bloom Program, patients accessed a range of supports that included counseling, peer supports, primary health care providers, support for chronic disease management and specialists.

• Pharmacists also provided navigation supports to other people in the community who were not enrolled in the Bloom Program.

Analysis

The Bloom Program evaluation found that people living with mental health and addictions problems did experience increased access to mental health and addictions services and supports while they were in the program. This was achieved in several ways. Patients had increased access to a Bloom Program pharmacist with enhanced training in mental health and addictions who provided individually-tailored medication management support (the outcomes of which are outlined in the next section, Medication Management). In some communities, access to the Bloom Program pharmacist provided patients with an additional resource or treatment option, while in other communities, primarily rural, the program addressed and/or bridged a gap in local mental health and addictions resources.

The evaluation also found that the Bloom Program was able to facilitate increase access to mental health and addictions resources because of its navigational support component. In addition to working with patients and other health care providers to address medication management issues, the pharmacists helped patients navigate and access the mental health and addictions and health care systems generally. In some cases this included facilitating patient referrals to primary and specialized care and by expeditiously connecting patients with the appropriate level of care through a triage process.

This next section presents the data analysis to support these findings.

Increased Access to Bloom Program Pharmacists

One of the main structural features of the Bloom Program was providing patients with the opportunity to regularly meet one-on-one with a pharmacist, as well as providing access on-demand, after completing the initial assessment. Patients were informed through the enrolment process that the default duration of the program was six months during which they were to work closely with their pharmacist and other members of their health care team to identify, prioritize, and manage their medication and related health concerns. They were informed that the pharmacy was being paid to provide this service, thereby entitling the patient to an enhanced level of care and support.

Chart review

A review of the chart data showed that Bloom Program patients had substantial access to and time with their pharmacists and that this was sustained while in the program.

First, patient follow-through with the program was high: 182 (90.5%) of patients returned after their initial assessment for one or more follow-up visits (range: 1 to 43) with their pharmacist. For all patients enrolled, the median number of visits was 5 (IQR: 3,9). Excluding the group who did not return for any
visits (9.5%), the median number of visits was 6 (IQR: 3,9), with two patients having 41 and 43 visits recorded, respectively.

During the enrolment and initial assessment, the median time estimated to complete the enrolment and initial assessment process was 50 minutes (IQR: 35,70). Figure 11 shows the distribution of the number of visits for all patients who returned after the assessment for one or more visits. The median duration of visits was 15-20 minutes for each of the first nine follow-up visits. For visits 10-17 the median visit duration was 10-15 minutes. There were too few patients (n=7) with more than 17 visits to reliably estimate visit duration.

Figure 11: Distribution of the number of follow-up visits between patients and pharmacists

The pattern of access varied among patients, fitting the program’s principle of patient-centred care. As anticipated, the intensity of care was highest early on in the program, with more frequent and longer visits, and gradually decline as the patient’s time in the program progressed. Figure 12 shows that the majority of interactions with patients were 20 minutes or less, but that a substantial proportion were much longer. A notable minority of patients experienced meetings with their pharmacist of 60 minutes or longer, even after being in the program for three months or longer. Also observable based on the colour coding of the visits in Figure 12 is that some patients had more than 10 visits within two to three months of participating in the program. Based on interview data, this could be attributed to the patients who accessed the program for social support.  

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**Social support**: the component of the pharmacist-patient interaction in which the pharmacist provides social support to the patient that is not specific to their drug therapy. Social support refers to the various types of support (i.e., assistance/help) that people receive from others and is generally classified into three major categories: emotional, instrumental, and informational support. This includes listening to patients’ concerns and distress, working to build rapport and trust, supporting self-management, providing encouragement and positive feedback, promotion of healthy behaviours, decisions, and actions, and promoting self-efficacy. See: Bungay KM, Adler DA, Rogers WH, et al. Description of a clinical pharmacist intervention administered to primary care patients with depression. Gen Hosp Psychiatry. 2004 May-Jun;26(3):210-8.
Figure 12: Frequency and duration of meetings between patients and pharmacists
Finally, the chart data analysis revealed that of the total documented 1233 patient-care meetings that occurred up until data collection for the chart review, there were an estimated 1687 actions taken by pharmacists in the care and support of the Bloom Program patients. The types and distribution of these actions is shown in Figure 13. These actions are linked to the program’s components and they will be discussed throughout this report in greater detail.

**Figure 13**: Distribution of purposes of follow-up visits between patients and pharmacists

![Chart](image)

**Interview data analysis**

The interviews with patients and pharmacists confirmed that patients had increased access to pharmacists by participating in the Bloom Program. Many Bloom Program patients said that prior to the program they interacted with their pharmacists mainly in the context of picking up their medications. The response from the patient below is typical of how many described these interactions:

Patient  

*Before* there wasn't much interaction, right? Like I've said, you know, just kind of go pick up your meds, say ‘thank you’, go on my way kind of thing. But now it's like, ‘How are you feeling?’ You know, ‘how are you?’ They seem that they're concerned and they're interested in how I'm doing more than before.

As a Bloom participant, patients had scheduled, private, confidential time with a pharmacist to focus on medications and other psychosocial issues related to their personal mental health and/or addictions. Bloom pharmacists said that not only did Bloom Program patients receive more of their time than non-Bloom Program patients, they also recognized that they were entitled to more time and were generally interested in accessing it. Pharmacists said that Bloom Program patients felt like they were a ‘priority’, were more ‘privileged’, and that they were being ‘taken seriously’ because they were given time.

Patients had greater access to pharmacists because the pharmacists made themselves as accessible as possible. Pharmacists said that they felt it was important for patients to feel that they could reach out to them at any time and they offered patients different options on how meetings could be
conducted and were flexible and able to accommodate their patients’ schedules and needs for the most part.

**Pharmacists**  One of my individuals was like, ‘Well I don’t drive’, like, you know, ‘I can’t come in.’ And I said, ‘Well, if you can't come in we can do it over the phone, we can do whatever. I could go to you. We can do whatever you need to do to get you healthy.’ So I think, to be honest, it's more about our commitment to that person that makes a big difference.

*We're in contact on a more regular basis, that would be the best way of putting it. We are at least meeting once a month, plus phone calls, and the phone calls are actually coming from both the pharmacy and the patient’s end so it's a two-way street*

Many patients indicated that they were told by the Bloom Pharmacist that they would make themselves accessible to patients. Patients said this was important to them and they appreciated the easy access. For some, easy access was particularly important because they didn’t feel comfortable going out in public.

**Patients**  *When I wanted to see her it was basically my choice to see her. She would tell me what time she was available and I would go see her first if I felt like I had to see her instead of just talking to her on the phone.*

*I have a therapist, I have a psychiatrist, and I see my doctor, but it's like, you know, the access to talk to them (pharmacist) is a lot easier than getting in to see a therapist, you know what I mean? Like, I can just walk in one day and just ask to talk to one of them if need be. I didn’t really have that.*

Based on the chart review, the majority (68%) of pharmacist-patient interactions were conducted at the pharmacy in private meeting rooms where confidentiality was protected; 28% were conducted by telephone; and, 4% occurred outside of the pharmacy, including at nursing homes and patients’ homes (see Figure 14).

**Figure 14:** How pharmacist-patient interactions were conducted (n=182)
In most cases the increased access was primarily to the lead Bloom pharmacist, whom patients would specifically seek out, but some patients appeared to also recognize that they were accessing a Bloom pharmacy and, as such, all staff had greater awareness and knowledge of mental health and addictions issues. Bloom Program patients had access to the full complement of pharmacy staff who were aware of the program’s objectives and who were involved in delivering the program.

Patient  *I don't usually open up to a lot of people so I did want to limit it to just one person, but sort of a change came when I was in the Bloom Program. All the other people who worked behind the counter, everybody seemed to know who was with the Bloom Program and who wasn’t. And when I would call for a refill or call with a question they were very, very helpful, and, you know, they knew that I was trying to learn this program and routine and if [pharmacist name] wasn’t here, they stepped in. ... I did notice a difference with the other pharmacists the way I interacted with them.*

**Increased Access with Extended Hours of Operation**

Bloom Program participants had increased access to mental health and addictions services due to the extended hours of pharmacies. A typical Nova Scotia pharmacy, even in rural communities, generally operates until 9 p.m. during weekdays and is open on Saturdays; some are also open on Sunday. Bloom Program patients were often able to schedule appointments during extended hours and encouraged to drop by and call if they had questions. Some lead Bloom pharmacists said they tried to schedule Bloom patient appointments when there was scheduled pharmacist overlap and during quieter times such as evenings and weekends.

In the interviews, the extended hours of pharmacy operation was recognized by patients, physicians and pharmacists as a factor that contributes to increased access to mental health and addictions services and supports. Patients and physicians appeared to appreciate this in terms of increased access to care.

Patient  *They are there like Monday to Saturday. Like, they're available a lot more than calling to get an appointment to go in and see somebody, right?*

Physicians  *They are an easy resource and they are sometimes more accessible, especially on weekends. So first and foremost I suggest that patients contact them if outside of office hours.*

*[The Bloom Program] brings management of an addiction to the community and gives patients the ability to contact for help when needed.*
Increased Access to Mental Health and Addictions Services and Supports

The evaluation found that the individually-tailored medication management support delivered through the Bloom Program contributed to an increase in the availability of mental health and addictions services and supports at the community level. It achieved this increase in access in several ways:

1) It provided mental health and addictions care in rural communities that did not have other resources (treatment and navigational support), thereby addressing resource gaps in the current mental health and primary care systems;
2) It provided care to people who were waiting to access other mental health and addictions care;
3) It increased the range of mental health and addictions care options services generally; and,
4) It provided financially accessible care.

In addition, the evaluation found that, while not a key component of the program’s initial design, one of the aspects of the program that many patients valued most was the social support they received from the Bloom Program pharmacist related to living with mental health and addictions problems or, occasionally, other issues (e.g., financial). Each of these findings are discussed in greater detail in this section.

1. Bridging service gaps

In the interviews, patients, physicians and pharmacists were asked to talk about the value of the Bloom Program - why did patients access it and why did physicians and other health care providers support patient involvement in it. To a great extent, the respondents said that they found value in the program because it addressed a gap in available mental health and addictions services in the local community. These services were either non-existent or very limited in what they could offer. In some cases, patients said that the services that were available prior to the Bloom Program were difficult to access so they chose not to use them.

Patients  I feel very grateful that I have someone right now because I don’t have anybody.
When it comes to mental health I have no problem being brutally honest. In [town name] it is actually scary how few resources there are. They're essentially non-existent.

The Bloom Program may have made a particular impact on increasing access to care and to meeting patient needs in rural communities where a Bloom Program was operating. Over half (13) of the Bloom Program pharmacies operated in rural communities.

Patients  It is a small community and there isn’t a lot, especially with mental health.
[Town name] is so small, I know there's nothing.

Physician  Especially rural Nova Scotia, because like I say, people in [rural community] or [other rural community], they travel so much just to come to clinic and so if they have these
facilities available in their local pharmacies, [and] they have a little problem - they're just dose initiating or escalating or cross-tapering - they just go and talk to them and stay as part of the program.... I would strongly recommend people work in collaboration with pharmacies and pharmacists.

Pharmacists working in rural communities consistently said that access to mental health and addiction care was often challenging in rural communities and they felt that the Bloom Program helped meet a significant need. Many felt that they were able, for example, to help patients save on travel time by offering care within the patient’s own community.

Pharmacist  The biggest advantage is that you're promoting that whole sense of community, making sure that people have access to resources. You know, they don't have to drive 40 minutes to find help or resources, and knowing that there are supports available.

Pharmacist  I think for everyone and their families it's another added resource that's right at home for them. That's a positive thing, especially in rural areas like ours. And even the wait lists in some communities are so long to get mental health services that it's a place where they know they can go to on their schedule and get help when they need it.

2. Providing interim care

The Bloom Program was also able to support patients who were waiting to access other services or who were left without supports when health care providers such as psychiatrists or counsellors were inaccessible. Some patients recognized that demand for mental health and addictions services is high and that the Bloom Program provides an interim level of support while waiting for or in the absence of more formal mental health and addictions counselling. It was clear that patients valued the easy access and social support provided to them by their pharmacist.

Patients  Well, my counsellor left for private practice, and so she dropped all of her clients at the hospital, and they're saying we don't have another person to fill all these people. So I've never gotten a session with another person, I was just dropped. And I'm on a list to get another one. But the thing is [the pharmacist] was perfect. ... he's not a psychologist ... it just made it lighter, you know what I mean?

I'm just waiting for the specialist to get in touch with me and conduct an interview and see where I stand. But I mean, I can still rely on [pharmacist name] - they told me that. So that's a good thing, that if I need them I can go to them.

I have a family physician, [physician name] in [town name]. It usually takes on average of about two to three weeks to get in to see him....

3. Reduced financial barriers

The Bloom Program may have also increased access to mental health and addictions services because patients did not bear any financial costs for participating. For some patients on a fixed or low monthly income, this was part of the appeal of the program.

Patients  Travel is difficult on the bus, one's monthly disability pension. My budget goes only so far! So yes, this pharmacist was greatly appreciated!
Well the thing is, there's no support for a private counsel unless I pay and I don't have any money.

4. Increased range of mental health and addictions care options

The evaluation found that the Bloom Program was able to support some people who would not otherwise utilize other mental health and addictions services and supports for a variety of reasons. The Bloom Program gave them another care option in their community. Accessing services through a pharmacy may have offered some patients what one pharmacist called ‘a neutral space’ that may have been more comfortable for individuals affected by the stigma of living with a mental illness or addiction.

Pharmacists  Something happened years and years ago which necessitated the hospitalization of our patient which led to a complete distrust of the system.

          For a lot of them it was a neutral outlet, a neutral person that they could talk to. And not only talk to about, you know, their medications and conditions but there was a level of trust that was built, so, you know, they would probably discuss things in a much more comfortable way...

Physician  Some patients, anyway, they are not that comfortable to go to mental health to start with but maybe they’re more comfortable talking to their pharmacist. Even just today I referred one patient to the program because she had a bad experience with mental health years ago. So she has a good communication with me and with her pharmacist, so I was like, ‘Do you want to join them?’ And I think she’ll do that. So that’s a bonus when we have - indeed, many of mental health patients they don’t want to go back to mental health, right?

A physician said that he would recommend the program because he felt that it would be particularly beneficial for patients who have severe or persistent mental illness. Surrounding them with a circle of supportive care options that includes pharmacists in the community would help them stay motivated and on a sustained path to wellness.

Physicians  Whether they see the doctor once a month or whether they see the pharmacist once a month, or go to see a mental health clinician, … if they’re seeing one person every week definitely goes a long way in keeping them [patients with severe mental illness] adherent, stable, motivated to make change. And so those sorts of patients, I think, very much benefit from an extra healthcare worker [pharmacist] being involved in a more detailed way.

One pharmacist was already supporting people who were in a methadone maintenance program and she said that she was pleased that the Bloom Program gave her the opportunity to provide enhanced service options to this population as well.

Pharmacist  We work quite often with addictions and it was another tool we had to provide them with better pharmaceutical services. We were really excited to bring that to them, to say that we can help with more than just the methadone prescriptions and Suboxone prescriptions that we received.
5. Providing social support

The evaluation identified a recurring theme within patient and pharmacist surveys and interviews: many patients accessed the Bloom Program because they needed and wanted ‘someone to talk to’. The extent of this feedback was an unexpected outcome because the provision of general social support was not a stated component of the program’s design or promotion. The program’s design inherently recognizes that pharmacists routinely provide support to patients and the development of a trusting, therapeutic clinical relationship facilitates improved medication management. Many patients commented directly on this support as something separate from medication management, and the value they attributed to it was unanimously high.

Patients I do remember the pharmacist that first night I went in there. It was almost like she was not a counselor but, you know, somebody that actually gave a damn and was passionate about the program and was actually truly trying to help me.

The most helpful part of the program was just knowing that you have somebody there on essentially a weekly basis, or even more frequently if need be, that you can talk to about some of the issues you’re having, mostly related to medication.

I felt really comfortable with her and she was always, every time I went there, she would always ask me how things were going, how I was feeling.

If it weren’t for the pharmacist, I would have no counseling.

Pharmacists also consistently mentioned that they felt that Bloom patients appeared to value the program because it provided them with someone that they could talk to and who would listen. The program’s structure facilitated the provision of social support over several months and pharmacists applied their communication skills to promote a positive patient-pharmacist relationship.

Pharmacists From the feedback I get from her she really appreciates the ability to come in and discuss how things are going. The fact of having someone to discuss these things is important to her and seems to help because, you know, we’re not therapists, but sometimes you know, somebody just wants to talk.

And all because you sat down and took the time to listen, and really, that’s what it’s about. It’s taking the time to listen, and I don’t mean it from a counselling perspective - because certainly we’re not counselors - but we have enough knowledge of different things that we can lead you one way or the other, you know, and help to get the resources that you may need.

50% of the people that we had, it’s just a lifeline for them, like, kind of feeling that they are at their wit’s end and then, like, okay, well there is someone that cares or there is someone to listen.
Increasing Access Through Navigational Support

Supporting patients in the Bloom Program to navigate Nova Scotia’s various health care systems is one of the program’s key commitments and expected outcomes. The focus was primarily on patient support navigating the mental health and addictions system, although patients could also be supported navigating the general health system.

As noted, pharmacists were prepared to deliver this component of the program by completing a required scan of mental health and addictions services and supports as well as by meeting with people providing these services and supports. During these meetings pharmacists would learn about the programs and services offered, meet staff, and take with them print resources to display in their pharmacy mental health and addictions resource centre. Pharmacists were also expected to conduct community outreach activities (education sessions, etc.) that reached the mental health and addictions community. When working with individual patients, pharmacists would utilize these local resources as well as those listed in the Navigator resource posted on the Bloom Program public website.

As depicted by the infographic in Appendix M, pharmacists identified, communicated with, and met with an impressive number of individuals and organizations offering mental health and addictions care and support in their local communities. Bloom pharmacists identified 320 community-based organizations and services across the province, with each pharmacy identifying 12 local resources on average. They met with representatives from 153 community organizations, learning about those organizations and sharing information about the Bloom Program, returning to their pharmacies with print materials for display in the pharmacy’s mental health and addictions resource centre. The accumulated time for these meetings was over 65 hours. A full list of these organizations is provided in Appendix N.16

Navigation activities based on chart and survey data

The chart analysis found that of the estimated 1687 actions taken by pharmacists in the care and support of 201 Bloom Program patients, 253 actions were in support of the patient’s navigation of the health system (15%).

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16 The data likely underestimate the true amount of time spent forging relationships as not all pharmacies recorded time commitments and ongoing collaboration beyond the application package was not collected.
The pharmacy staff survey data analysis (n=25 representing 23 pharmacies) found that 13 respondents (52%) reported that they helped a Bloom patient, family member, or caregiver to navigate or locate resources and seven respondents (28%) indicated that they had referred Bloom Program patients to mental health or addictions services. It is worth noting that the respondents to the pharmacy staff survey were pharmacists (and to a lesser extent pharmacy technicians and dispensary assistants) that were not the lead Bloom Program pharmacists but were other pharmacists at the same pharmacy location. This indicates that the program was a team effort involving multiple pharmacy dispensary staff who were involved in supporting patient navigation and access to mental health and addictions resources, services, and supports.

This support was used by patients to access a range of services and supports, as quantified in Figure 19. Based on the survey data, patients reported that the navigational support they received from Bloom pharmacists helped them access mental health services (61%); other services and supports in the community (47%); access to health services for physical health (42%) and access to supports for addictions (25%).

Importantly, the survey data found that the majority of patients were more aware of other resources in their community (72%) and were better able to find services and supports in the community as a result of being in the Bloom Program. Almost half of the
respondents (47%) said that this navigational support helped them find and use services and supports for their health faster than before participating in the Bloom Program.

The evaluation also reviewed open-ended written survey responses from patients regarding what services and supports the Bloom Program helped them access. Many messages reflected that patients were supported to access mental health and addictions services that include community-based counselors, psychiatrists, and specialist clinics to address eating and sleep disorders, as well as family physicians. Other services and supports accessed through the Bloom Program included diabetes management clinics and recreational activities such as swimming and crafts.

Figure 15: Type of service and support accessed through pharmacist navigational support

Improving system efficiencies via pharmacist-facilitated access to other mental health, addictions, and physician health care services and supports

This use of the Bloom pharmacist’s time may have been used to help increase efficiencies within the health care system (see also Communication and Collaboration). When patients living with mental illness and/or addictions appeared to lose contact or become frustrated with their relationship with one or more members of their health team, Bloom pharmacists were well situated within the community to help maintain the patient’s connection with the health system. There was evidence that community
pharmacists supported continuity of care when relationships with other health providers waxed and waned.

Patient  I was going through a bit of sort of a rough patch with my doctor and we were having almost no communication at all and I thought, ‘Oh, my goodness! Is there somebody who will listen to me and answer my questions about why am I on this medication?’.

Patient and pharmacist interviews consistently provided evidence that the Bloom Program was effective at supporting participants to better navigate the mental health and addictions system. Some patients needed to access clinical counseling services and the Bloom pharmacist was able to connect patients with individual and group counseling services offered in the area.

Patient  I think that it was the second or third session in, she [pharmacist] helped me out and I learned a lot more about the local psychologist and my other options. And she did some research on that, like, between our sessions, the information and contact info. for a few people... It’s made a pretty good difference. ...[T]he medication helped, but the bigger part was going to the CBT course with the psychologist, but combined with it all, I’m really good right now compared to this time last year.

There was also evidence that Bloom pharmacists were able to help patients navigate the broader health system if the client was in need of other health and social services. In the case below, the patient could not afford diabetes supplies and the pharmacist referred her to an organization that could help her access free insulin needles.

Patient  When a bit of difficulty arose as far as my finances were concerned and I started using the same [insulin injection] needles, she said, ‘You can’t do that. That’s what’s giving you this staph infection.’ Well I said, I’m very clean and I shower and that, and she said, ‘No, that has nothing to do with that, but up at [town name], if you go to the diabetes education centre, you may be able to talk to them and as a “hardship case” they may be able to assist you with the cost of these items.’ And sure enough, I went up and they were able to help me. I found that just a godsend. She knew what was going on and she knew where best to send me to see what we could get going. And I mean, I didn’t realize that, you never know what’s out there until, you know, you start doing some investigating and she pointed me in all the right directions.

The navigation needs of Bloom Program patients appear to have been diverse. One Bloom pharmacist helped a patient get a provincial health care card and another patient was supported to find more appropriate housing. Another Bloom pharmacist helped a patient access a dietician in the community because the patient wanted to improve her eating habits. Another patient was put in touch with the local hospital’s diabetes clinic. There were also a few examples given of Bloom pharmacists working with patients around medication management and navigation support that eventually led to employment.

Pharmacist  Probably the best one [example] was a lady that was sort of shut in, took her a while to even think about coming to see me, and then I worked with her for a few months. She got in touch with someone at Peer-on-Peer with CMHA, ended up actually getting a part time job, ended up getting a full time job in Ontario, and moved away.
Several patients said that they appreciated how the Bloom Program pharmacists advocated for them within the primary health care system. This included making appointments with physicians and advocating for them on their behalf. Some patients said they found this difficult to do on their own, in part because of the stigma surrounding mental health and addictions.

**Patients**

*It just takes a lot of stress off of me just trying to deal with this myself and with my doctor and trying to make appointments with my doctor... She communicates with my doctor quite easily compared to me through emails and through phone calls and, you know, just saves a lot of time and a lot of stress.*

*I find that a lot of people dealing with mental health issues, unfortunately we lack credibility for whatever reason and he [pharmacist] essentially, again, was my voice and was able to communicate certain things to my doctor that he may otherwise have not understood himself... What they did was they communicated to my doctor without me having to make doctors’ appointments and wait. It’s sped up the whole process.*

**Extending navigational support to non-Bloom Program patients**

An expected outcome of the program was that pharmacists would be able to better care for and support people not in the program (see Expectations in the Methodology section). Some pharmacists observed that they were able to provide greater access to mental health and addictions supports to people in the community who were not formally enrolled in the program, people who heard about the program through participants or who saw program resources posted in the pharmacy. In one case, a pharmacist worked with a person in the community who met the program criteria but who never wanted to enroll. The pharmacy applied the program principles and practices and the patient experienced positive outcomes.

**Pharmacist**

*He’s probably one of the best candidates for Bloom and he never enrolled, thought he didn’t need it. We didn’t use any of the Bloom material but we did contact his doctor. We made a recommendation, medication was prescribed, we followed him up, did all the work we would have done with Bloom. Never could get him to enrol. And yeah, the patient is fully functional, back to himself and feeling great, and every time he sees me he says thank you very much for the care and the exceptional services that you’ve given to me. And to this point, he’s never joined Bloom. So that’s one of the quirky things, our service has got better even for patients who are not in Bloom. ...It has made us better pharmacists.*

**Navigational support increases inter-professional networking**

As noted earlier, Bloom pharmacists were responsible for conducting outreach activities with local mental health and addictions service. Some Bloom pharmacists said that this outreach helped to create professional networks that they continue to use in their day-to-day pharmacy practice, independent of the Bloom Program.
Pharmacist  I think that the advantage is the networking opportunity and the relationships that are built in the community, which is sort of a prerequisite to being approved as a Bloom pharmacy. So I think it is an advantage. The disadvantage is, I guess, it takes time and effort to create those relationships if they're not already there, but overall, I think it's advantageous to make that a requirement.

Despite the additional work it took to conduct navigational outreach, this same pharmacist felt that the navigator role fit well with her vision of the kind of work community pharmacists should be doing.

Pharmacist  I like that they would see us as someone who might be able to help them figure out what the next step to do is. Even just making sure someone has the mobile mental health crisis number, that they know that that's a support that's out there, or passing along the phone number for the outreach program for setting up an appointment with the social worker at the mental health clinic that's closest to them, kind of thing, right? I think we're just trying to help get people connected as best we can. The biggest advantage is that you're promoting that whole sense of community and as a community pharmacist we're kind of all about that as well.
Outcome 2: Medication Management

Short-term outcomes
- Medication and other related health issues are identified and acted upon
- Patients have increased knowledge about their medications and health

Intermediate outcomes
- Health and medication issues are better managed and/or resolved

Evaluation questions
- To what extent was the Bloom Program able to identify, act upon, and resolve patient medication and other related health issues?
- To what extent did participating in the Bloom Program result in patients increasing their knowledge about their medications and (general) health?

Key findings
- Most Bloom participants (81%) utilized the Bloom Program to optimize their medication regimen to better meet their health needs, followed by management of adverse effects (24%) and support with medication discontinuation (13%).
- Most patient- and pharmacist-identified medication issues (e.g., unresolved symptoms or impaired functioning, adverse effects, etc.) were either resolved or improved while the patient was in the Bloom Program. Approximately one in four identified medication issues did not improve.
- Over half of Bloom participants identified that they had other health issues in addition to mental health and/or addictions issues. The Bloom Program was able to work holistically with these patients to identify and begin to address these other issues.
- Patients reported that their awareness and knowledge about medications related to their health increased while they were in the Bloom Program.

Analysis

Resolution of Medication Issues

The Bloom Program was designed primarily to address five broad categories of medication management issues (see Box B):

1) treatment optimization
2) adverse effect
3) non-adherence
4) medication withdrawal
5) inappropriate polytherapy
**Box B: Medication management issues addressed in the Bloom Program**

1. **Treatment optimization:** Following a standard trial of recent mental health/addictions pharmacotherapy, there is non-response or partial response requiring change in pharmacotherapy;

2. **Treatment adverse effect:** Experiencing a treatment-limiting adverse effect to current mental health or addictions medication(s) requiring change in pharmacotherapy;

3. **Non-adherence:** Medication refusal or non-adherence leading to a current or a near-recent decompensation of mental illness or addiction.

4. **Medication withdrawal:** Difficulty tapering and stopping treatment for a mental health or addictions problem in a stable patient.

5. **Inappropriate polytherapy:** Taking multiple medications, including psychotropics and non-psychotropics, that is causing functional impairment requiring modifications including medication discontinuation(s) on the basis of safety, redundancy, and absence of indication.

**Analysis of chart data**

Chart data and interviews with patients indicate that the leading reason for entering the Bloom Program was to improve symptom burden and level of functioning through changes in the patient’s medication regimen. The need for treatment optimization was indicated by 81% of patients entering the program, followed by 24% for adverse effects and 13% for support for discontinuing psychotropic medication (Figure 16).

**Figure 16: Frequency of medication issues identified by patients at enrolment**

<table>
<thead>
<tr>
<th>Issue</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inappropriate polytherapy</td>
<td>6.0%</td>
</tr>
<tr>
<td>Non-adherence</td>
<td>10.9%</td>
</tr>
<tr>
<td>Medication withdrawal</td>
<td>13.4%</td>
</tr>
<tr>
<td>Adverse effects</td>
<td>24.4%</td>
</tr>
<tr>
<td>Treatment optimization</td>
<td>80.6%</td>
</tr>
</tbody>
</table>

The initial assessment included a relatively comprehensive review of current or relevant past mental health, addictions, and physical health issues. This assessment also included a thorough review of current and relevant past medication use. Medication and health-related goals were discussed and prioritized. The types of medication issues that the program pharmacists focused on were often complex...
and required significant patient education, collaboration and communications, research, and follow-up assessment and care. Contributing to the complexity were the patient’s personal and financial circumstances as well as the existence of comorbid health conditions. In completing their initial assessment with patients, pharmacists typically identified up to 3 priority health and medication issues with each patient. While there may have been more than 3 issues to be addressed, the intention was to identify those of greatest importance to the patient, related to the scope of practice of a pharmacist. A selection of the health and medication issues, as documented in the initial assessments by the pharmacists, is listed in Box C.

Throughout the course of the program, the pharmacist would work closely with the patient to resolve or improve the status of identified issues, including any additional ones that might arise over time, for example as medication changes were made and the clinical relationship developed. The longitudinal approach to care built into the program’s structure supported pharmacists and patients developing a strong clinician-patient partnership. This relationship developed through multiple follow-up visits and collaboration with physicians and other health providers.

**Box C: Verbatim examples of clinical problems documented at assessment**

<table>
<thead>
<tr>
<th>Treatment optimization</th>
<th>Depression and anxiety are preventing patient from going to work.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Insomnia. Mind doesn’t shut off at night.</td>
</tr>
<tr>
<td></td>
<td>Average sleep is 3 hours per night.</td>
</tr>
<tr>
<td></td>
<td>Anxiety and depression. Need better medication management and other non medication tools.</td>
</tr>
<tr>
<td></td>
<td>Patient is experiencing worsened anxiety due to health, employment, social (family) problems. Not interested in attending a support group. May benefit from online resource from Bloom website to help lessen anxiety and open her up to the idea of seeking professional help for anxiety.</td>
</tr>
<tr>
<td></td>
<td>Quit smoking.</td>
</tr>
<tr>
<td></td>
<td>Migraines are impacting daily function. 10-15 days per month.</td>
</tr>
<tr>
<td></td>
<td>Manage stress/anxiety. Husband and son fighting cancer, mentally challenged son to care for.</td>
</tr>
<tr>
<td></td>
<td>Keep hallucinations from returning.</td>
</tr>
<tr>
<td></td>
<td>Agoraphobia/paranoia.</td>
</tr>
<tr>
<td></td>
<td>Depression/anxiety. Currently not well controlled, but not interested in new medication.</td>
</tr>
<tr>
<td></td>
<td>Depression exacerbated by marital issues, death of her mother, lack of work, and chronic pain.</td>
</tr>
<tr>
<td></td>
<td>Not working right now and wants to feel well enough to return. Cipralex is not helping with symptoms.</td>
</tr>
<tr>
<td></td>
<td>Anxiety is main concern. Increased after stopped Effexor. Worse these last 2 weeks with starting Paxil.</td>
</tr>
<tr>
<td></td>
<td>Optimization of medication with consultation with psychiatrist &amp; family doctor.</td>
</tr>
<tr>
<td></td>
<td>Anxiety disorder and experiencing panic attacks for years. Several times a week, at night or first thing in the morning. Bowel problems, heart palpitations.</td>
</tr>
<tr>
<td></td>
<td>Can feel her mood slowly elevating (more energy etc.) is there anything she can take when this happens to prevent progression to mania?</td>
</tr>
<tr>
<td></td>
<td>Starting Abilify - titrating up slowly - replacement for lithium to help treat OCD and depression -&gt; would like support through this change.</td>
</tr>
<tr>
<td></td>
<td>Effectiveness of Sertraline, doesn’t seem to be helping.</td>
</tr>
<tr>
<td></td>
<td>Insomnia-falling and staying asleep. Has never been well managed for 20 years.</td>
</tr>
<tr>
<td></td>
<td>Patient at risk of CV event due to poor diet and familial risk factors.</td>
</tr>
<tr>
<td></td>
<td>Seeking therapy optimization for mental health problems (depression, hallucinations).</td>
</tr>
</tbody>
</table>
One pharmacist summarized their role in an interview.

Pharmacist  
*First off, we're looking at medication management: Is this drug working for you? How long have you been on it? Is this a side effect from the drug? Are there drug interactions, drug disease interactions?*
Of the 201 patient charts collected of enrolled patients, 182 (91%) had at least one follow up contact with their pharmacist. The average patient entering the program experienced five to six follow-up visits over a six month period with their pharmacist and each visit lasted for approximately 20 minutes, however, there was a wide range in terms of the frequency of visits, their duration, and in the patients length of enrolment. More frequent and longer visits occurred earlier in the six month period, as necessitated by clinical need, including treatment assessments, of the patient.

At entry to the program, the number of current medications recorded in the patient’s Bloom chart averaged five per patient and ranged from zero to 24. Patients enrolling in the program taking zero medications at the time of entry had recently stopped treatment due to a lack of response, experienced or worry of adverse effects, or for financial reasons. The most common medications were antidepressants (72%), benzodiazepines and related hypnotics (53%), antipsychotics (28.9%), opioids (12%, 7.5% of whom were in an opioid maintenance program), and mood stabilizers (10%). The rate of concurrent multiple psychotropic use, inclusive of opioids for maintenance therapy, was high (68%) as was the rate of use of medications for physical health problems (71%). Concurrent substance use, though not necessarily abuse or misuse, was also relatively common among program participants. Rates of self-reported nicotine, alcohol, and marijuana use were 39%, 37%, and 18%, respectively. Sixteen percent of patients indicated that they had a substance use disorder.

**Health and medication issues at discharge**

From the chart review, 57 patients were determined to be discharged from the program, 46 of whom had met with their pharmacist and completed the program’s discharge form. A full accounting of the disposition of the patients enrolled in the program can be found in Program Data section (Table 13). On the discharge form patients rated their health and medication issues as resolved, improved, unchanged, or worsened as a result of their participation in the program. There were 125 medication issues evaluated. Seventy-eight percent of medication issues were considered improved (61%) or resolved (17%) and 21% were unchanged. See Figure 17.

**Figure 17:** Patient-reported rates of health problem outcomes at discharge (%)

<table>
<thead>
<tr>
<th>Category</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resolved</td>
<td>16.8%</td>
</tr>
<tr>
<td>Improved</td>
<td>60.8%</td>
</tr>
<tr>
<td>Unchanged</td>
<td>20.8%</td>
</tr>
<tr>
<td>Worse</td>
<td>1.6%</td>
</tr>
</tbody>
</table>
Two of 125 (1.6%) were classified as worse. A patient with physical disability experienced weight gain in associated with an increase in dose of olanzapine while participating in the program, rating the outcome of “weight loss” as worse. Another patient experienced a worsening of depressive symptoms in the first six months of the program. The pharmacist had recommended initiating antidepressant treatment on several occasions but her family physician preferred to wait until she could be seen by mental health services. Months later, symptoms were exacerbated when a personal relationship ended abruptly. She was hospitalized briefly and shortly thereafter started on an antidepressant. Her time in the Bloom Program was extended by six months. Upon discharge from the program at 12 months her anxiety and depressive symptoms and personal relationships had improved and stabilized.

The 125 health problems assessed at discharge were primarily related to mental health issues and to a lesser extent addictions and physical health issues, including pain, neurologic, and cardiovascular health problems. Examples demonstrating the diversity of the issues, actions taken while the patient was in the Bloom Program, and the outcome are provided in Table 14.
Table 14: Verbatim examples of discharge health and medication issue outcomes

<table>
<thead>
<tr>
<th>Health issue</th>
<th>Action</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment optimization Anxiety &amp; depression</td>
<td>Has improved through talking as well as having her better control over asthma. Still feels defeated and drained with anxiety more at night. But overall she is better.</td>
<td>Improved</td>
</tr>
<tr>
<td>Sleep difficulty</td>
<td>Melatonin and changed Effexor schedule.</td>
<td>Improved</td>
</tr>
<tr>
<td>Insomnia. Average sleep 3 hours per night, multiple medications.</td>
<td>Sleep therapy, weaned off hypnotics.</td>
<td>Resolved</td>
</tr>
<tr>
<td>Improve depression</td>
<td>Initiation of Cipralex, monitoring for effectiveness</td>
<td>Improved</td>
</tr>
<tr>
<td>Depression</td>
<td>Spoke about what is going on in her life, she found it therapeutic to talk about it.</td>
<td>Improved</td>
</tr>
<tr>
<td>Did not feel comfortable taking venlafaxine</td>
<td>Pharmacist contacted doctor to ask to have patient switched to citalopram. Doctor responded but wouldn’t switch until he saw the patient.</td>
<td>Resolved</td>
</tr>
<tr>
<td>Depressive episodes surrounding menses</td>
<td>Increased Paxil, augmented with Abilify, controlled menses via depo progesterone.</td>
<td>Improved</td>
</tr>
<tr>
<td>Anxiety + OCD tendencies</td>
<td>CBT</td>
<td>Improved</td>
</tr>
<tr>
<td>Untreated anxiety</td>
<td>Mindfulness program, changed work and place.</td>
<td>Improved</td>
</tr>
<tr>
<td>Antidepressant ineffective</td>
<td>Sent letter to doctor. He did not act/respond on it.</td>
<td>Unchanged</td>
</tr>
<tr>
<td>Pain control</td>
<td>Changed to long-acting hydromorphone Contin.</td>
<td>Improved</td>
</tr>
<tr>
<td>Anxiety</td>
<td>Meditation, speaking with pharmacist during Bloom, speaking with doctor.</td>
<td>Improved</td>
</tr>
<tr>
<td>Alcoholism</td>
<td>Patient has been indulging in meetings with old sponsor for support</td>
<td>Improved</td>
</tr>
<tr>
<td>Anxiety, anger, paranoia</td>
<td>No changes in medications. [Patient] feels like this program has helped a lot. She has decreased anxiety coming into pharmacy, talking to me about her health/personal and mental health issues and feels comfortable if she needs help in the future. Still experiencing anger and paranoia - Has talked to Doctor about referral to psychiatrist.</td>
<td>Improved</td>
</tr>
<tr>
<td>Chronic pain</td>
<td>Acupuncture, tried nortriptyline, massage, chiropractor, yoga</td>
<td>Unchanged</td>
</tr>
<tr>
<td>Weight</td>
<td>Controlled asthma better, therefore allowing her to exercise more and not be on prednisone.</td>
<td>Improved</td>
</tr>
<tr>
<td>PTSD</td>
<td>Sertaline 50 mg started</td>
<td>Unchanged</td>
</tr>
<tr>
<td>Seasonal depression</td>
<td>Light therapy suggested to be continued</td>
<td>Improved</td>
</tr>
<tr>
<td>Adverse effects</td>
<td>Met regularly to discuss medication side effects.</td>
<td>Improved</td>
</tr>
<tr>
<td>Medication side effects</td>
<td>Still unable to work full days. We feel the tamoxifen may be causing her to feel weak but she still have 2 years left on it.</td>
<td>Unchanged</td>
</tr>
<tr>
<td>Fatigue/insomnia</td>
<td>Zantac 150 mg once daily half hour before sertraline.</td>
<td>Resolved</td>
</tr>
<tr>
<td>Non-adherence</td>
<td>Decreased sex drive</td>
<td>Switched oral contraceptive.</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td></td>
<td>Not testing [blood glucose] regularly because of finances</td>
<td>Now on 5 injections per day of insulin -&gt; seeing clinic for supplies</td>
</tr>
<tr>
<td></td>
<td>Not taking meds properly</td>
<td>More organized - and knows what they are for but now ++ financial issues</td>
</tr>
<tr>
<td>Medication withdrawal</td>
<td>Looking for a more natural approach/would like to stop all medications.</td>
<td>We discussed current medication but did not think it was a good idea to stop everything abruptly.</td>
</tr>
<tr>
<td>Inappropriate polypharmacy</td>
<td>Domperidone + Ezetrol not needed.</td>
<td>Contacted doc for discontinuation. [Patient] felt fine without those.</td>
</tr>
<tr>
<td></td>
<td>Reduction in pill load.</td>
<td>Change in meds.</td>
</tr>
<tr>
<td>Other</td>
<td>Unnecessary OTC products</td>
<td>Stopped</td>
</tr>
<tr>
<td></td>
<td>Finances, tax return.</td>
<td>Helped encourage visit to doctor’s office. Was able to get to doctor and to get blood work done.</td>
</tr>
<tr>
<td></td>
<td>Had not seen doctor for a long time</td>
<td>both doctors aware -&gt; patient keeping them both informed on what she's on</td>
</tr>
<tr>
<td>overlap in medications from 2 doctors</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Analysis of survey data

Patients who had completed the Bloom Program were invited to complete a survey voluntarily to provide feedback about their experience in the program. Thirty-six patients completed the survey. Their responses indicated that the most frequent services received related to working with their pharmacist to identify and resolve their health and medication issues (Table 15). They also indicated that pharmacists often provided support to patients in accessing various health services.

Table 15: Patient survey report of services and supports received in the Bloom Program

<table>
<thead>
<tr>
<th>Services and supports received</th>
<th>Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reviewing my health issue(s)</td>
<td>94</td>
</tr>
<tr>
<td>Reviewing my medication(s)</td>
<td>86</td>
</tr>
<tr>
<td>Identifying and prioritizing health issue(s) to be addressed</td>
<td>81</td>
</tr>
<tr>
<td>Identifying and prioritizing medication issue(s) to be addressed</td>
<td>72</td>
</tr>
<tr>
<td>Making plans to address my health and medication issues</td>
<td>75</td>
</tr>
<tr>
<td>Changing my medication regimen</td>
<td>67</td>
</tr>
<tr>
<td>Talking with my family or caregiver about my health and medications</td>
<td>47</td>
</tr>
<tr>
<td>Helping me to access health services:</td>
<td></td>
</tr>
<tr>
<td>Mental health</td>
<td>58</td>
</tr>
<tr>
<td>Physical health</td>
<td>36</td>
</tr>
<tr>
<td>Addictions</td>
<td>19</td>
</tr>
<tr>
<td>Assisting me in finding other services and supports in my community</td>
<td>42</td>
</tr>
<tr>
<td>Providing me with health information to read (print/online)</td>
<td>58</td>
</tr>
</tbody>
</table>

Twenty-five patients responded to the patient survey question asking if their medication issues were resolved during their participation in the Bloom Program. Fourteen said “yes”, nine indicated “some, not all”, and two indicated “no”. Nine other survey respondents indicted they were still in the program and two provided no response to this question for a total of 36 completed surveys.

Survey participants were asked to describe what medication issues were resolved. Nineteen (53%) responded and most said that participating in the Bloom Program resulted in them taking a different medication that worked better for them.

Patients I had to have my medication changed. The last medication wasn’t doing me any good no more. I am taking Venlafaxine 75 mg twice a day and it is working well.

Blood pressure med. Changed to help with side effects.

The second most commonly cited intervention made by a pharmacist that was of benefit to the patient was a recommendation to change the dosing regimen.

Patients I was taking much more Seroquel than I needed for sleep.

They [pharmacist] got in touch with my psychiatrist and he upped them [medications].
Several patients said that the Bloom Program resulted in them being able to comfortably withdraw from a medication.

**Patients**  
Still in the program. At present I am still tapering medications I have been taking for 20+ years.  
Weening down off diazepam. Stopped taking medication that I didn’t need.

Patient survey respondents also cited general improved medication management in terms of organizing doses, providing adherence aids such as blister packs, and general medication counseling.

**Patients**  
I started getting my meds in blister packs so I could remember when to take them.  
Time for discussing each of my medications, side effects, what works best. I felt very good after I finished the course because all my medication was discussed and I feel very comfortable with my medications.

Seven patients (19%) responded to the question “What medication issues were not resolved?” It appears as though the unresolved issues were linked to the nature of the health issue experienced by the participant rather than the program itself, including an inability to pay for needed medications and equipment.

**Patients**  
I tried coming off Lamictal but started again, but [I] think now it was withdrawal and I should have gave it time.  
Methadone decreased significantly but [I’m] still on.  
The pharmacist did an excellent job trying to find alternate medications for all of my present meds – no luck, lot of research.

With respect to physician surveys, no single question directly asked whether the physician observed any changes related to medication management, however several physicians commented favorably on having the pharmacist directly involved in the patient’s medication management issues.

**Physicians**  
They [pharmacists] can solve problems upstream before they become expensive disasters.  
Patient centered. Reviews the medications as a whole. Educates and supports patients in managing many psychotropic medications.  
Pharmacist was aware of patient goals in managing medications. More attentive of any concerns or problems related to prescribing, bringing attention to the physician as needed.  
The program allowed for on-the-spot medications changes that wouldn’t be possible in a standard family practice.

Pharmacists’ survey responses (n=28) indicated they perceived overall improvements in quality of patient care, patient relationships, and patient health outcomes (Figure 18).
Analysis of interview data

The chart review and survey findings were reinforced by the patient, pharmacist, and physician interviews. Most patients said that participating in the Bloom Program helped them identify and address medication management issues and that the Bloom pharmacist was integral to the process. Again, medication optimization was the most frequently discussed medication issue. A typical patient survey respondent indicated that they were not doing well, leading them to review with their pharmacist their health issues and current and past medications to explore opportunities for change in their medication regimen. Often a change in medication was initiated and sometimes doses were adjusted and medications withdrawn.
Treatment optimization

Patients  My family doctor put me on a certain medication [but] it wasn't working very well. I couldn't sleep. I was still trying it when I started the Bloom Program. I was talking with my pharmacist. She explained to me in detail the different types of medications and the benefits and negatives of each one and she recommended that I try a different medication, which I'm actually on now and it works a lot better.

He [pharmacist] recommended a new pill for me to use. He wrote a letter to my family doctor and he recommended a pill to quiet me down and make me think better and feel better. And now I'm kind of in the middle of it. [The pharmacist] helped me out with it and still from time to time when I go down weekly they talk to me about it. If I have any problems they'll discuss it with me. So, I was glad of that.

It has helped me through my addiction for sure. I have medication that I'm comfortable with which was more related to my needs instead of experimenting so much. It's narrowed to exactly what is actually working for me.

Data from pharmacists’ interviews also support the program’s focus on and benefits to patient health through enhanced medication management. The comment below summarizes one of several similar successes a pharmacist observed in caring for people with chronic insomnia for whom sleeping pills were not the right approach.

Treatment optimization

Pharmacist  I had an older gentleman, he's probably late 70s, who had a fairly serious stroke about seven or eight years ago and has dealt with depression and insomnia over the years. He had come to the pharmacy one day looking really haggard, tired and wiped out – really smart guy – and he was asking about, you know, sleep medication and that sort of thing. He'd had a few different medications that he'd tried but was just not doing well. So we enrolled him in the Bloom Program and he went from two to three hours a night, with broken sleep that he'd been getting for almost a year, to getting seven or eight hours of solid sleep. And this was within a few weeks of getting rid of any of the sleep medication and that sort of thing, kind of gradually over the span of a few months. So that's probably been my biggest success and most common form of success.

In some cases, the pharmacist worked with patients and the family physician to address addiction and medication safety issues, including reducing the risk of falls and overdose. Pharmacotherapy review included helping patients find better and sometimes safer alternatives, or withdrawal from some medications, and pharmacists provided social support to help manage the changes.

Medication withdrawal

Pharmacist  I had an opportunity to help get an elderly lady off of her benzodiazepine. Under usual care I don't know if we would've achieved that but we did with this program. I ended up seeing her once a week until we could get her stabilized. ...I gave her positive encouragement every single day for a while on the phone, 'You're okay, look, you're okay', and she realized that, yes, she was okay without the medication.
**Adverse effects**

*Pharmacist* One patient needed something for pain because she had tried to overdose on her medication so her doctor wanted her to have something safer.

Sometimes changing medication scheduling had a direct impact on the patient’s wellbeing.

**Medication optimization and adverse effects**

*Pharmacist* We worked with her family doctor not on changing the daily total dosages of the medication but adjusting the times and the quantity of the dose throughout the day, to the point now where her side effects have diminished and her anxiety has diminished. She seems to be a lot better functioning ... through the day with a lot less anxiety, which, of course was a major concern of her spouse. He has mental health issues as well. They were sort of feeding off of each other. The last conversation I had with him he thanked me for improving her anxiety levels.

Determining the impact of medication management from the physician’s perspective was more difficult. Seven of 10 physicians interviewed stated that they recalled which of their patients were in the Bloom Program and five stated that they found the program to be helpful in identifying and addressing medication issues. They indicated that the Bloom Program offered patients a forum to have in-depth discussions with an expert in pharmacotherapy and medication changes were made that generally supported better patient functioning and contributed to overall improved mental health outcomes.

**Treatment optimization**

*Physicians* The other patient I remember, there was some reluctance starting a new medication and through the Bloom Program, the discussions with the pharmacist, we did start a new medication. That helped facilitate a fairly big change in medication, and the patient, I think, has done very well.

I would say if not resolved, then worked on, you know. It depends. Sometimes it’s just a little adjustment or sometimes it means changing the medication depending on the situation. ...I had one patient where we’d taken him off lithium and he was kind of going back on it and it was pretty complicated. So it was good that we had – I just see it as more collaboration, right?

**Adverse effects**

*Physicians* I think, first and foremost, I see them as a resource to have discussions around medications, and more comprehensive discussions. I mean, I know I can talk about... dosages but I can’t even tell you for the most part if things are tablets or if they're capsules, right? And I can say generally when the best time to take it is, but, you know, again, I think that pharmacists are far better placed to appreciate and understand the common side effects, not that I’m not but...

One [patient] was able wean off one and go onto another and is doing very well. The other one was able to, I think, regulate the dosing of several of her medications. And I think that’s made their life, you know, their energy level, their level of sedation a lot better.
Inappropriate polytherapy

Physician One patient, there were numerous medications and a real kind of attempt to titrate and wean down certain medications while making sure that they were remaining stable, and I think that was helpful.

Medication management: success stories

Pharmacists were asked to describe an example of success related to the Bloom Program. A few of them are briefly reported here.

Pharmacists A woman was prescribed a medication for anxiety that she did not want to take. The pharmacist worked with her explaining what she could expect in terms of possible benefits and adverse effects. They reviewed several medication options in detail. Feeling reassured and informed, the patient agreed to a trial of the medication prescribed by her physician. According to the pharmacist she experienced a complete recovery from her illness.

A man had depression, chronic pain, and diabetes, among other health issues. The chronic pain was not well managed and was negatively impacting his depression and other health issues. The pharmacist discussed with him his current medication regimen and reached out to the patient’s doctor (via fax) with what she felt offered an evidence-based and appropriate change in regimen for this patient’s chronic pain, diabetes care, and related sleep issues. Pain management improved rapidly and was associated with improved sleep and subsequently mood symptoms.

A man was addicted to alcohol, severely depressed, and taking multiple medications that weren’t working well for him. Bloom Program pharmacists helped him reach out to his family physician who then worked collaboratively to stabilize his symptoms and medications.

A man with ADHD and other mental health issues was experiencing erectile dysfunction that was worsening over the past few years. The Bloom pharmacist developed a plan with the patient that included a use of a small dose of a compounded medication that made the sexual side effects more manageable for the patient.

A male patient was started on a ‘pill pack’ to improve medication adherence. The pharmacist then worked to address his overuse of unrequired medications. Together with the patient and physician they were able to reduce his use of multiple benzodiazepines down to one and to completely wean him off of three other medications.
Holistic Medication Management

The Bloom Program was designed to give priority to people living with severe and persistent mental illness, however, it was recognized at the outset that mental illness is frequently comorbid with drug use disorders and both are affected by and impact other health care issues. As such, the initial assessment is designed to be holistic and identifies other contributors to health and wellness.

Analysis of chart data

Based on patient charts, over half (56%) of enrolled patients indicated that they had other health issues in addition to their mental health and addictions issues. Most of these health conditions were categorized as pain and neurologic disorders and cardiovascular disease. The specific rates of the physical health conditions documented at enrolment are provided in Table 16.

Table 16: Physical health conditions reported by Bloom Program participants

<table>
<thead>
<tr>
<th>Physical health condition</th>
<th>Count</th>
<th>Percentage (%)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain &amp; Neurologic Disorders</td>
<td>77</td>
<td>38.3</td>
</tr>
<tr>
<td>Cardiovascular Disease &amp; Risk Factors</td>
<td>56</td>
<td>27.9</td>
</tr>
<tr>
<td>Gastrointestinal Disorders</td>
<td>29</td>
<td>14.4</td>
</tr>
<tr>
<td>Endocrine Disorders (Diabetes, Hypothyroidism)</td>
<td>27</td>
<td>13.4</td>
</tr>
<tr>
<td>Respiratory Disease</td>
<td>21</td>
<td>10.4</td>
</tr>
<tr>
<td>Other (e.g. sleep apnea, skin conditions, liver disease, bladder disorder, kidney disease)</td>
<td>47</td>
<td>23.4</td>
</tr>
</tbody>
</table>

*Percentages based on 113/201 Bloom participants who reported on physical health at enrolment.

As noted at the beginning of this section and tabulated in the patient demographic overview (see Tables 10 and 11, p. 26-27), participants in the Bloom Program reflected the Nova Scotia general population of people living with mental illness. Use of other substances (e.g., nicotine, alcohol, marijuana, and opiates) were frequent as was polypharmacy with psychotropics (68%) and the concurrent use of medications for physical health conditions (71%). A few examples of physical health issues and the related medication problems are listed in Box C (p. 52).

Analysis of interview data

Interviews confirmed that the Bloom Program was able to help participants address other medication management issues that were not specific to treating mental illness and addictions. Bloom pharmacists supported patients to get basic medical tests done and encouraged and supported the adoption of healthy behaviors such as healthy diet and exercise. Pharmacists also engaged patients in discussions around stress reduction and encouraged the use of non-pharmacological techniques such as meditation and cognitive-behaviour therapy for sleep problems. This holistic approach was viewed as being helpful by patients, pharmacists, and physicians.

Patients  

*I started walking more and got out of the house because I tend to be a person that would say in the house all the time. So I did do those things and it did make me feel considerably better."

When I first went to the Bloom Program [pharmacist name] was-as delicately as possible..."
as she could say was, you know, you have diabetes, you know, perhaps if you lost maybe 10 pounds or so that will help you. And I ended up losing 30 pounds on the Bloom Program. And my doctor did not say a single word. Now in my mind if you lose that much weight your diabetes should be re-evaluated, your blood pressure medication should be re-evaluated, you know, these are-those are the things that are gonna improve my health other than the meds. So, you know, like I said there were lots of things that really helped improve just my day-to-day awareness.

Pharmacists One other lady, one of her problems was she was having a side effect from her quetiapine. …We were doing some check-ups and it turned out she had diabetes so she’s been getting extra care with her diabetes as well as being enrolled in this program. We have been able to keep track and see how she’s doing with her diabetes and how that’s working with her other medications as well.

One of the patients we enrolled in October had not had blood work in a long time and stopped her thyroid medication so we had her schedule an appointment with her family physician, had her blood work done, got started back on thyroid medication and followed her up a lot closer. …[H]er low energy and not feeling well might have been attributed to not taking her medication.

Physician One of my patients with opioid use disorder got valuable information on sleep and the encounter helped uncover psychosocial issues I was not aware of.

**Improving Pharmacist’s Patient Care**

Several pharmacists indicated that they took a holistic approach to medication management prior to the Bloom Program, but the program’s structure, with its more in-depth assessment and allocated time to work more closely with patients, allowed them to formalize this work and to conduct better follow-up and monitoring of interventions. This aspect of the Bloom Program is what set it apart from their regular practice. A physician commented similarly.

Pharmacists We go the extra mile for these patients, you know, so we know if they’re starting an SSRI and they’ve been on 10 already that we’re gonna call them in a couple days and say ‘How’s it going? Do you have any side effects? Where are we at? You’re supposed to still feel awful so just hang in there.’ Sometimes it’s just that outreach.

The Bloom Program patients know more—I don’t like using the word holistic, but yeah – there’s more to it. It’s not just drug-related questions, it’s optimizing drugs and making sure that they’re [patient] in touch with all the other resources out there.

**Increased Awareness of Medications**

**Analysis of interview and survey data**

One of the program’s expected short-term outcomes was increased patient awareness and knowledge of their medications. This was facilitated through the several meetings with the pharmacist and patient and differed from usual practice in that there was a shared expectation of follow-up meetings and discussions, as well as documentation in the patient’s chart.
Increased knowledge and awareness of medications took several different forms. Some patients said that meeting with the pharmacist to talk about their medication helped them learn what their medications were for, how they worked, what common side effects they could expect, and how to manage them. Some patients indicated that they learned important information about medication safety and some said that they learned more about their particular mental illness and addiction(s).

Patients  I have a much better understanding of what I'm taking, the effects, side effects, combinations, ... it's just opened a whole wide new door for me to understand what is going on with my medications.

I find it was a really good place to learn about what my options were. Like, from her we discussed the medications and stuff, certain problems, you know, like anxiety and stuff like that. I learned a lot about the medication and different aspects of it while I was in there.

Some physicians also echoed the value of the program from a medication awareness and knowledge perspective. One physician wrote in a survey:

Physician  Patient centered. Educates and supports patients in managing many psychotropic medications.

Patient Empowerment

Analysis of interview and survey data

A core principle of the Bloom Program is to provide patient-centered care. The patient is situated at the forefront of their personal health care journey and they are listened to, informed, respected, and have control over their own choices. Collaboration among the patient and other people within their circle of care is valued and encouraged.

Providing patient centered care is considered a critical part of the Bloom Program’s theory of change: when patients are meaningfully involved and feel in control of decision-making related to their personal health they are more likely to take steps to improve it and positive health outcomes are more likely. While not explicitly asked in the patient survey and interviews, multiple patients, physicians, and pharmacists said that one of the outcomes of the Bloom Program was that it empowered patients to take greater control over their health. This likely stems from the program’s strong patient-centered philosophy.

Physicians  My patients who participate have greater self-efficacy.

I think that there's much more discussion around options of medication and so I think the patients feel like they are more, they've had a bigger decision, a role in the decision of what medication is going to be used or what dose is going to be used or when it's going to be re-evaluated. And I think that really goes a long way to empowering patients. They’re going to be much more adherent with their medication.

One of my very articulate patients, he had comorbid alcohol addictions as well as a mood disorder and he explored far more sort of varieties of medication that was available worldwide. He’d done internet searches with (pharmacist) and he’d come up with, ‘You know, can I try this for cravings but continue with this?’ and he actually left
me like a huge stack of literature that he was reviewing. So I felt that definitely there was, you know, a difference with a few of them who really, you know, felt encouraged to look into their treatment as part of the process.

Patient Yeah, so everything that the Bloom Program contributed to my health was absolutely positive and it was encouraging and it really felt, and I hate using this word because it’s overused but, empowering. ... it was kind of a wakeup call almost, a chance to sit down and, you know, go over all these medications and aside from taking these medications what else can I do to help improve my health.

Relationship Building

Analysis of interview and survey data

It appears as though positive outcomes in many cases were achieved through conscientious, respectful relationships on the part of the pharmacist with the patient, particularly with patients who may have not otherwise sought professional support. Changes in medication management were not made until a trusting therapeutic relationship had first been established.

Pharmacists We've had a couple of people that we've been trying to help, trying to get in the program. ...We've had to take it very slow and [be] very careful with them, but that's been, you know, we've talked to them for months and months about joining and finally it happened.

[It was actually my very first [Bloom] patient. She had come and she was very hesitant to start medication. She had been prescribed it and she wouldn't start it, and she held onto the prescription. We had met for a couple of meetings and she said, you know, I think I'm finally ready. And I didn't talk her into it but I told her about, you know, what she can expect in terms of benefits, side effects, and potential other options. It was a lot of educating her on the different medications.

You can slowly see that progression as a couple weeks go by... 'You know what, I'm not so scared to increase it to a full tablet now because I know you're gonna be there for me. And I know if I can't handle it you're gonna fix it, you're gonna help me.' Whereas before, she was very, like, hopeless because she said, 'You know, I've done it so many times and nobody cares.'

The Bloom Program may also offer a safe place for patients to explore other pharmacological options. Several pharmacists said that patients sometimes don’t feel comfortable talking with their physicians if the medications they are prescribed aren’t working well for them. They don’t want to ‘let on’ that they aren’t feeling well. This dynamic was echoed by a psychiatrist who stated:

Physician I think the most value as I say is that it's outside of the team. It's somewhere where it's a safe place to say, I don't like this medication I want to stop it.

A common theme in the physician interviews was an appreciation for the medication expertise pharmacists were able to contribute to the patient’s overall health care management, particularly in the area of psychotropic mediations. Several physicians said that they valued having a ‘second opinion’, especially with regard to psychotropic medications, regarding which would be effective, well tolerated, or safer. This recognition of pharmacist expertise is also discussed in ‘Role of Pharmacist’.
One psychiatrist said that his/her Bloom patient was “overly reliant” on medications. The psychiatrist was hoping that the pharmacist would be able to encourage the patient to engage in some non-medication specific activities, such as engaging in more psychosocial activities, but the pharmacist was not successful in supporting the patient in this area. The psychiatrist said that the process confirmed his own analysis of the patient, which he viewed as helpful even though it did not lead to any specific changes in the patient’s care.

**Individuals who did not complete the Bloom Program**

Loss to follow-up and lack of concordance with management plans are commonplace in health care, especially in mental health and addictions care. This was recognized by Bloom Program pharmacists early on and raised with the program implementation team. They noted that many people declined to learn about or join the program and several who did enroll were quickly lost to follow-up or were difficult to engage while in the program.

Of the 201 patients who enrolled in the program, 10% did not return for a follow-up meeting. The perspectives of this group of patients are not reflected in this evaluation. As such, their reasons for not continuing to participate, whether program-related, illness-related, or personal, cannot be elucidated at this time.

Of the group that had one or more follow-up visits with their pharmacist, the frequency and pattern of visits was highly variable. A not insubstantial proportion had very few follow-up contacts. Eighteen percent left the program within three months of enrolment. Others remained in the program officially but did not meet regularly with their pharmacist.
Outcome 3: Communication and Collaboration

Short-term outcome
- Pharmacists and physicians are communicating about patient care.

Intermediate outcome
- Care providers are collaborating to meet patient’s needs.

Evaluation question
- To what extent did the Bloom Program change communication between pharmacists and physicians and were there examples of pharmacists collaborating more with other health care providers as a result of Bloom Program?

Key findings
- Most physicians and pharmacists reported that communications and collaborations around Bloom patient mental health were enhanced or consistent with what they were already experiencing prior to Bloom. This is grounded in the recognition that pharmacists contribute valuable mental health pharmacotherapeutic expertise.
- There were many examples cited by patients, pharmacist, and physicians where pharmacists and physicians successfully communicated and collaborated for the purposes of advancing positive health outcomes for Bloom Program patients.
- Some physicians said there were challenges regarding communications, primarily that they were not always aware of who was enrolled or discharged from the program and what their ongoing status was vis-à-vis progress.
- Some pharmacists reported that they attempted to communicate with physicians but they were not always successful in being able to generate a response.
- Patients recognize the value of increased communication and collaboration among pharmacists and physicians and appreciated when it occurred in the Bloom Program.

Analysis
One of the commitments of the Bloom Program is to provide patients with enhanced communication and collaboration with their other health care providers, especially those working within primary care and mental health and addictions services. The program explicitly recognizes that no single member of the patient’s circle of care can support the patient in addressing what are often complex and almost always deeply interconnected mental and physical health care problems, issues, and needs. Pharmacists contribute unique, specialized skills and expertise, as well as observations based on their interactions with the patient, but patient care is optimized when pharmacists can integrate their work with that of the patient’s circle of care in order to fully support positive outcomes regarding resolved or improved medication management issues.
Communications

As noted in Section III, Program Description, it was expected in the Bloom Program that communication between pharmacists and physicians would be based on their usual format, which may be different depending on the pharmacist-physician relationship. Pharmacists and physicians often communicate with one another on a daily basis via telephone or fax. Based on this knowledge, fax templates were provided for pharmacists in the Bloom Program materials. Templates included the Bloom logo and were intended for use when informing physicians about a patient’s Bloom Program enrolment. Ongoing communication mechanisms were left to the discretion of the pharmacist and physicians. Pharmacists were encouraged to document all communication, whatever the format, with other health care providers.

SURVEY DATA

Physician survey

Of the eight survey responses from physicians, 4 physicians indicated they communicated 1 to 3 times per month and the other 4 indicated less than once per month for Bloom patient communications.

Telephone, faxing, and in person visits were the most frequently used vehicles for communication and also the most preferred. Overall, the communication approach in the Bloom Program was not different from typical communication practices.

Physician Pharmacist was aware of patient goals in managing medications. More attentive of any concerns or problems related to prescribing, bringing the attention to the physician as needed.

Four physicians agreed that the quality of communication with pharmacists has improved while four chose neither agree nor disagree. The frequency of communication was reported to increase (i.e., agree) by four physicians, while three neither agreed nor disagreed and one disagreed.

Patient survey

Eighteen of 25 (72%) Bloom Program patient survey respondents indicated that pharmacists were talking with family or caregivers. Eleven (44%) indicated that this was useful and 11 reported not applicable. Sixty-nine percent of survey participants indicated that their pharmacist and physician worked more closely together on the patient's health and medication issues. Only 14% indicated that there was not an improvement in how the pharmacist worked with the other people on the health care team. From the patients’ perspectives, there was also enhanced collaboration between pharmacist and patient with 89% indicating that the pharmacist worked more closely with the patients on their health and medication issues.

Pharmacist survey

Forty-three percent of Bloom pharmacist survey respondents indicated that the frequency of communication with physician increased. Thirty two percent of respondents agreed that their
relationships with physicians have strengthened. Seventy two percent of pharmacy staff survey respondents indicated that the Bloom Program influenced how pharmacy staff collaborate with others in the care of Bloom Program patients.

Pharmacy staff reported numerous benefits with respect to collaboration in free text responses:

“The documents I would send to doctors allowed them to see how invested I was in the patients care.”

“It has broadened my scope of practice as a pharmacist beyond dispensing.”

“Communication with doctors has increased, in one particular case we have had great communication with a patient’s case worker in working towards getting this patient settled into the community and in keeping him in his home.”

“The confidence to advocate on behalf of the patient in making clinical changes and recommending medication changes to physicians rather than simply sending the patient to see the dr with their concerns. the formality of booking pts for appts and documenting their appt has improved how our pharmacy manages expanded services.”

“The doctors involved in the program respond quickly to my "health provider communication" faxes as well as phone calls, and I feel like its improved my relationship with those doctors - lots of discussions with the other pharmacists in the store about the Bloom patients and mental health overall - more involvements and awareness of mental health organizations in the community - the initial contact with them all helped open the doors for a mutual relationship”

"Because we have a good history on our patients and a better understanding of their situation and their needs, it is easier to communicate with social workers and psychiatrist to make recommendations. Because we are located in a small community, we already had good communication with our local family doctors, but since we have started the Bloom Program, we collaborate closer with the psychiatrists around the region as well as other health professionals such as social workers."
Interview data

Communication

There were mixed findings from the physician interviews around whether the Bloom Program enhanced communication between pharmacists and physicians.

Of the 10 physicians interviewed, six said that they did not experience any problems regarding communication. They said that they received the Bloom faxes and that these were followed-up, if needed, to further discuss any suggested changes in medication management. One physician summarized the process he typically observed to communicate and collaborate with the Bloom pharmacist and to support the work the patient was doing through the Bloom Program.

Physician  It seemed to be more that the patient was able to access the pharmacist with issues that they were having around their symptoms or their side effects with the medications, and then the pharmacist was able to relay that to me, and sometimes I would just have a conversation with the pharmacist again, and then they would relay something back to the patient, or it would cue me to contact the patient, you know, depending on the circumstances if I thought it was required.

A psychiatrist, who had 10 patients in the program, did not experience any problems related to what she saw as improved communications. Overall, she felt that the enhanced communication increased patient safety.

Physician  I remember one of my patients just disappeared off the face of the earth and, you know, he wasn't coming for our patient appointments. I know that he was accessing the Bloom through (name of pharmacist). So I sort of said to her, ‘If at any point he comes to, you know, get any other information about medications’ – because he was very apprehensive about Lithium - then could you tell him that we're really keen to connect and we're worried about him.’ And she did and he connected and he's currently an inpatient I hear in [[name of community].

... It really sort of developed that kind of rapport for patient risk and safety, whereas otherwise, you know, everybody's just a name and you don't want to really give any information, you don't trust that information to be kept confidential, whereas here it was almost like a working relationship that we developed.

There was a consistent theme in four of the 10 physician interviews that communication could be improved between pharmacists and physicians. Several said that they believed they were notified when patients were enrolled in Bloom but they weren’t certain if patients were still in the program or if they had been discharged. Some also said that they weren’t exactly sure of how many patients they had in the Bloom Program and two felt that communication procedures may not have been consistently applied.

Physicians  At the beginning I remember receiving faxes with, like, a letterhead and a small note or something like that, but that didn't persist and I haven't received anything lately so I was left kind of wondering, ‘Are these particular patients still in the program? Were there other patients that were enrolled later on that they kind of never informed us about?’ So the communication at the beginning [there] was a little bit, but then it just-there's been really no communication. That's unfortunate I think.
This is one of the issues. I don’t know who’s in it and who’s not in it, okay? I know people who are in it and so I would have had I think certainly about eight people I would think in it, but I don’t know that officially.

One of these physicians said that he would have liked regular updates or summary reports from Bloom pharmacists so that he could both support the work the patient was doing in the Bloom Program and feel confident that the patient wasn’t getting mixed messages from different care providers. The other physician (psychiatrist) said that he found out that two of his eight patients in the Bloom Program were enrolled after the fact. He would have liked to have had input into whether they were suitable candidates. He felt that one client in particular did not benefit from participating in the program because it gave her an opportunity to engage in ‘splitting’, which he felt was pitting the Bloom pharmacist against himself, her therapist. He suggested that the pharmacist maybe went beyond providing non-specific support to the patient and this did not support the therapeutic work he was doing with her as her psychiatrist.

A third physician (psychiatrist) said that she felt that there was good communication around medication management issues but there could have been better communication around how to best engage and work with clients who present with more challenging behaviors. She knew one of her patients valued her relationship with the pharmacist and she was hoping that the pharmacist would provide another voice to the patient and help motivate her to consider non-medication treatment options. She discussed the client’s participation in Bloom with the pharmacist and they agreed that it might be helpful for her to join.

Physician So I felt like we understood each other but I didn’t get much feedback around, nor did they really consult me around, you know, how to engage her, how to work with her, that kind of thing. ...I think what also wasn’t a success was after I referred her to the program, and this is as much my fault I think as it is on the Bloom Program or the pharmacy’s fault, I really had no sense of what she was doing. I never really got any feedback until actually the stuff around the evaluation came out and when next I was talking to them I said, ‘Hey, whatever happened with..?’ ‘Oh yeah, she didn’t really follow through.’ That was kind of it.

The evaluation was not able to identify precisely where the communication breakdowns occurred. There may have been some challenges engaging physicians in the Bloom Program initially that resulted in an ongoing problem with communication. Some pharmacists said that they would have liked to have conducted better outreach with physicians or that they tried to engage them but were unsuccessful in generating an initial response.

Based on the interviews, some of the challenges could also stem from both pharmacists and physicians neglecting to either send out Bloom communications or review incoming ones. This could be because both professions are challenged by extremely busy work environments and both pharmacists and physicians said that sometimes things ‘go amiss’ or ‘get missed’.

Finally, there may have been some issues related to misconceptions and/or tensions related to the intent of the Bloom Program and/or pharmacist scope of practice. Several pharmacists reported that they repeatedly attempted to communicate with some physicians but they did not get a response. (Note: this issue will be further explored in a process evaluation conducted of the program should it be expanded).

Pharmacists I’ve written several letters to the doctor explaining what I’ve taken to be his [the patient’s] condition and including records he had in Toronto. So I tried to put that all down on paper,
present it to the doctor, suggested a treatment plan. I really wanted to get the therapy going early and I wanted the doctor to respond to me, allow me to initiate the therapy because I had the whole thing written down as a plan. He never responded to me.

I did have a few more patients involved that went to different doctors. I didn't really hear a lot from them in terms of feedback at all, like I would send them information and then the patient would kind of talk to them about it. They never really contacted me.

That was one of the more kind of disappointing aspects of the program for me so far I think, you know, hopefully that will improve and change, you know, 'cause I did, you know, make phone calls and send faxes and emails and that sort of thing about the program and never really heard back from anyone...

In one case, a pharmacist described how she had contacted multiple health care providers in her community to inform them of the Bloom Program and to generate referrals. She said that in her experience, the physicians did not generally appear to be interested on working with her to address mental health related medication management issues.

Pharmacist  And then one of his patients was having issues with compliance. She [patient] seemed to be going through her medications, despite blister packing them, earlier than she should have. So she's a week early out of a 28 day supply and she gets Lexapram and she gets a couple of other, you know, an SSRI and she gets a whole bunch of other things that she shouldn't be taking more of and there's always a story and I'd actually contacted the physician and said, 'Do you think she would be a good candidate for the Bloom Program if she's using more of her medications or having problems with things?' And he basically stated, ‘Do you know something I don't?’ 'Like, well, no, I'm just- I'm trying to offer solutions, you know?' So yeah. And, you know, nice man, just didn’t go as I would expect, you know, so we haven’t had a single referral from mental health or from any physicians despite contacting the mental health or the hospital, despite contacting nurses individually that I know, despite contacting all of the psychiatrists that I could think of.

Collaboration

Increased collaboration as a result of Bloom was identified as a medium term outcome of the program. Where medication management cases were relatively straightforward, clear communication between the pharmacist and physician around medication changes appeared to be sufficient to improve and/or resolve the identified issue(s). When cases involved more complex mental and physical health problems, collaboration was required.

Overall, it was clear from both physicians and pharmacists that they recognized that collaboration is important to address and resolve complex medication management cases and the physician and pharmacist quotes cited above and throughout this report should reflect a common desire on the part of many in each profession to engage in more collaborative practice. There were multiple examples given by pharmacists, physicians and patients in the interviews that demonstrated that the Bloom Program was able to increase collaboration between pharmacists and family physicians and psychiatrists. Many of these examples have already been cited in this report under the Medication Management and Navigation sections.
All of the physicians interviewed for the evaluation, regardless of whether they had concerns about communication procedures, said that they supported the Bloom Program and its focus on enhancing collaboration to better serve patients living with mental health and addictions issues. In good part, this was because they said that they recognized, valued and often relied upon the expertise pharmacists bring to patient care in the area of pharmacology. Several physicians said that this expertise is particularly important when supporting patients who have complex mental health diagnoses.

Physicians  *I mean I think it’s a fantastic idea, like, to have more of a collaborative effort, because, you know, more is better, you know, more heads, access to more expertise and I really do appreciate the feedback when I do get it ...When you’re dealing with narcotics they [pharmacists] are experts in the field as well and I think in terms of other patients, I do depend on them. It usually is only when something goes wrong, so it would be nice to kind of, you know, have a relationship before that happens to kind of prevent it.*

*Just having somebody else who’s got experience, and also, if I’m going to start mixing medication, a second set of eyes to watch for more subtle side effects. They [pharmacists] have a niche in terms of finessing the medications and being aware of potential interactions or potential synergistic benefits that I may not know about.*

Several physicians also recognized that pharmacists are well positioned to provide input into how patients are functioning on medications given that they tend to have more frequent interactions with the patient working out of a community-based pharmacy.

Physicians  *I often call them looking for collateral information because of their contacts with the patient.*

*I personally found it beneficial to talk about medications with the pharmacist because they feel they know the patient too, mentally, not just the prescriptions they use. So that was very good.*

Pharmacists, despite some of them saying that they were frustrated when physicians did not respond to their communications, said they wanted to work more collaboratively with physicians because they knew this was the most effective way to produce positive patient outcomes for those who had complex medication-based mental health needs. As such, many tried to conduct their work with patients in a way that reinforced the work the patient was doing with their primary health care provider and psychiatrist.

Pharmacists  *I would say that the success of the Bloom Program in our pharmacy was 100% directly related to the physician involvement, there’s no question about it.*

*We try to keep it quite a tight bond between them and their doctor about making sure we manage some drug interactions and things like that. ...We kind of try to enhance that for their visits so that the doctor can target things, our issues, for them a lot quicker.*

*This person didn’t know if their doctor was doing the right thing because they felt the doctor would rush them through their interaction. So basically we researched the doctor’s suggestion, and in their case it seemed to be the best suggestion, so it’s more just kind of like, you know, solidifying it in their minds and making them feel*
comfortable with the doctor’s decision and the reasons behind it.

One psychiatrist said that she appreciated how Bloom pharmacists worked with her to support patient care.

**Psychiatrist**  
*I never had an occasion where, you know, they said, ‘Oh, we saw this patient at the Bloom Program, didn't think they were on the right meds so they should be on this’, or, ‘they shouldn't be on this...’. And patients who came, they were encouraged to take what they were already prescribed and maybe add on something, but it was never a debate on anything else.*

*It made our job easier; it didn’t really cause any problems.*

The evaluation also found that patients appreciate that health care providers have different but complementary roles to play, understand the importance of health care provider collaboration, and want to see more of it.

**Patients**  
*My doctor is off sick right now and actually when she comes back we are going to do a little decrease in medication but we had to wait till she come back 'cause I didn’t want to do it without her in there.*

*There’s just so much more they can help people with when there are more people involved in it and everybody providing care brings their own slant to things. So your doctor has all the best intentions from a doctor's perspective, and your pharmacist has the best of intentions from a pharmacy perspective and so on. So if they’re all trying to help from the best of their abilities then something good’s gonna come of that.*

...*[A]fter I got all the options [from my pharmacist] I knew that I could go see a psychologist as an option because [my family doctor] said medication and therapy could benefit better than one or the other. I didn’t think that he was going to use [my pharmacist’s] advice but he made a phone call and I ended up getting through to mental health and into a CBT program.*

One patient said that his physician was not initially aware of the program but showed interest in it when the patient described it to him. The physician supported his involvement and began to work with the patient’s Bloom pharmacist.

**Patient**  
*They started discussing solutions, possibilities, stuff like that, you know what I mean? You know, like, the three of us basically worked as a team. ... [H]e [physician] was really impressed with it.*
Outcome 4: Role of the Pharmacist

Intermediate outcome

- Patients are more aware of pharmacists’ roles in mental health and addictions.

Evaluation question

To what extent did the Bloom Program change patient awareness of the pharmacists’ roles in mental health and addictions?

Key findings

- Participation in the Bloom Program changed how patients viewed the role of pharmacists in their health care. Patients saw pharmacists as trusted health care professionals that they could turn to for medication guidance and social support.

- The Bloom Program confirmed for many physicians that pharmacists have significant medication expertise to contribute to patient health care and they are uniquely situated in community health care to provide patient care because of their regular patient contact.

The Bloom Program structure supported pharmacists to work to their full scope of practice by providing comprehensive, longitudinal care for people living with mental health and addictions problems. One of the predicted medium term outcomes of the program was that patients would positively experience the different roles that pharmacists can fill as a result of providing more comprehensive, longitudinal care. This change in role perception would lead patients to feel more comfortable accessing community pharmacists to help them identify, understand, and manage medication and related mental health and addictions problems they were experiencing.

It is clear from the data that this change in pharmacist role perception by patients occurred. The patient survey found that over three quarters (78%) of respondents (n=36) felt that participating in the Bloom Program changed their opinion about the role of the pharmacist in their health care and 94% agreed or strongly agreed that they were *more aware* of the pharmacists’ roles.

When asked to explain what they saw as the pharmacist’s role in mental health and addictions following their experiences in the Bloom Program, the majority of qualitative responses (survey and interviews combined) could be broadly themed as patients seeing pharmacists more as a trusted health care practitioner that can provide more comprehensive mental health and addictions services and support. Most patients indicated that prior to the Bloom Program their relationship to pharmacists, while often positive and friendly, was primarily based in the pharmacists’ dispensary role for medications prescribed by their family physician or psychiatrist. Interactions were regular but brief and focused mainly on the pharmacist communicating information related to medication changes.

The Bloom Program allowed patients and pharmacists to develop a deeper, more trusting relationship, facilitated in good part because the program gave pharmacists the opportunity to spend focused time with each patient, starting with a comprehensive initial assessment, that allowed them to develop a fuller understanding of their mental health, addictions, and physical health problems, and to provide
ongoing, patient-centred, holistic follow-up care. This resulted in patients feeling more comfortable speaking with their pharmacist about issues that they would not have talked to them about otherwise. Some patients said that they didn’t know that pharmacists could provide them with the range of services, care, and supports they received in the Bloom Program, with one patient offering the example that they didn’t know that pharmacists could ‘look into things’ for them (i.e., advocacy/navigational support). Overall, patients consistently said that through their experience in the Bloom Program they came to see the pharmacist as a health care professional who was helpful, supportive and genuinely interested in their mental health and overall wellbeing.

Patients

[You know, you go in to see the pharmacist. You just pick up your prescription and you go home. You know what I mean? Like, you’re just, ‘Hi, how are you?’ But being in the Bloom Program and sitting down ... and opening up to them and letting them know what I was going through and stuff like that. I don’t know... it just made me feel comfortable afterwards because now they know my issues, they know my problems, they know what I’m going through.

[Before] there wasn’t much interaction right? Like I’ve said, you know, just kind of go pick up your meds, say ‘thank you’, go on my way kind of thing. But now it’s like, ‘How are you feeling?’, you know, ‘How are you?’ They seem that they’re concerned and they’re interested in how I’m doing more than before.

I did not know that a pharmacist would be so helpful, supportive, and involved in your health.

I feel more comfortable talking to them and know they are always there to help.

A subtheme identified in the data analysis is that patients did not appear to be aware prior to the Bloom Program that pharmacists had a high level of psychotropic medication expertise, including knowledge about new medications on the market, differences between medication, etc. Again, this is a shift from seeing pharmacists in a more technical dispenser role to that of a knowledgeable health care provider with medication expertise that they can access for treating mental health and addiction problems.

Patients

I didn’t realize just how much more up-to-date they are on the latest medications and, you know, ‘Well if this upsets your tummy, I’ll write it down, you take this to your doctor, see if this medication will help...’. I really have found that much has changed. I feel that it’s much more trustworthy. I know that they’re more up to date on the medications and they might be able to provide you a reasonable recommendation. So that much has certainly changed. I respect them enormously.

I don’t know what my opinion was before but now I see that they definitely are somebody I can use for my symptoms.

I now see that my pharmacist has vastly more knowledge on the suitability of medication.
Physicians

Many of the physicians interviewed also said that their interactions with pharmacists through the Bloom Program increased their understanding of the role pharmacists can play in providing mental health and addictions services and supports. As noted earlier, most physicians acknowledged that pharmacists possess a high level of medication expertise and some said that prior to the Bloom Program they were already turning to pharmacists when they needed to discuss psychotropic medication options.

Physician  I use them as, again, a sounding board around the pros and cons of meds when patients are considering, you know, should I start this medication or not, because I usually provide a few options. I'll say, ‘Okay, pros and cons to drug A, pros and cons to drug B, but really you've got to live with the choice and, you know, if you need further information talk to your pharmacist.’ So that's mostly how I suggest patients use the pharmacist.

In this context, the Bloom Program appeared to help some physicians renew their appreciation for the expertise pharmacists can contribute to improving a patient’s health and wellbeing and many said they welcomed an enhanced role for pharmacists in supporting people with mental health and addictions problems. One physician said she felt that the Bloom Program helped to formalize the application of pharmacist medication expertise to better mental health and addictions patient care.

Physician  I think the Bloom Program sort of formalized things for pharmacists. I think pharmacists were doing it ad hoc anyway. They were talking to patients and encouraging them to take the medication but I think it gave a platform for pharmacists to officially enroll people into a program to discuss medication, discuss their concerns, interactions and talk about compliance in a formal way, almost like another arm of therapy. So, I think, you know, the good pharmacists were doing it anyway but this gave them more validation of what they were doing and how important it was in patient recovery.

Several physicians also said that they recognized that pharmacists are uniquely positioned in the community health care setting in that they often have regular contact with patients in ways that other health care providers may not. Over time, this ongoing interaction with patients results in the development of an important patient–provider relationship that should not be overlooked when searching for ways to better support this vulnerable population.

Physicians  Pharmacists are able to assist in providing direction and support outside of medications to patients and may share similar goals of encouraging enhanced self care/psychosocial interventions to improve wellness and decrease medication overuse particularly when other strategies are more helpful.

From my perspective, especially patients who pick up medications every month, or every few weeks, my sense is the pharmacists really do get to know them very well, so to have that person better integrated into the team providing care either with the GP or with the specialist, or specialist programs, I think would be really great. But I think for that to happen there has to be something, you know, some of those conversations would be really great because I think it’s really easy to get sort of stuck in believing that pharmacists have, you know, a narrower scope of practice and that maybe they don't have the skill to do X, Y, and Z even though that’s what the program says that they're
As noted in the above quote, there may be a need to provide more education to the physician community about pharmacists’ full scope of practice beyond what is implied by pharmacists delivering the Bloom Program. One physician said that he was ‘impressed’ that pharmacists were interested in becoming more involved and taking on an enhanced role in providing patient care. Another physician said that he was not aware that pharmacists could provide services beyond those that were medication specific, providing as an example what he termed psychosocial care and what pharmacists refer to as social support.

Providing social support is within a pharmacist’s scope of practice and the importance of it for patients in the Bloom Program was an emerging theme in this evaluation. Many Bloom Program patients highly valued the psychological support they received from their Bloom Program pharmacist. For many, it appears, that this support was welcomed in the absence of formal clinical counselling services within the mental health and addictions system. This was not a strong theme in the physician interviews but it did get mentioned several times by one physician in the context of suggesting that specific pharmacists may have been working beyond their scope of practice and providing therapy beyond social support.

Because this support was so highly valued by patients – the degree to which was not anticipated in the design of the program – this issue could be directly addressed in future Bloom Program pharmacist training activities. It could also be addressed by formally communicating to the physician community the services and supports patients can access in the Bloom Program and how providing these falls within the pharmacist scope of practice.

**Pharmacists**

For pharmacists, it was evident from the interviews that participating in the Bloom Program gave them greater opportunity to optimize their scope of practice, something that most appeared to fully embrace to the extent that it was manageable within their work environment and dispensary responsibilities. This outcome will be explored in a separate pharmacist-focused outcome evaluation if the program is expanded, however their observations on how patients perceived their expanded role warrant brief mention because they support what patients said in the interviews and survey.

Most pharmacists said in the interviews that the Bloom Program allowed them to get to know their patients better and they felt that patients began to see them more as clinicians who were part of their health care team.

*Pharmacists*  They see you as more of a clinician. Even though something like the Bloom Program involves much more clinical work than giving a flu shot, it just makes patients see you more in that role other than, you know, the person that gives me my drugs and charges me this much at the cash register.

I think that they saw us as being more than just pill counters, that we actually were a part of the healthcare team and (they) asked us more questions, wanted our opinion and just trusted it more.

I think it’s supported our role with the patients a lot better that we could be, like, a helpful part in their healthcare team. So I think it’s really brought the pharmacist a little
One pharmacist talked about this in the context of changing expectations with his patient.

The expectation is there. It’s kind of shifted and changed in his mind that, you know, we’re not just dispensing medication. We’re actually providing that better care.

One pharmacist said that s/he had non-Bloom Program patients come into the pharmacy to get navigational support because they had heard from Bloom Program patients that the pharmacist was providing this service. This likely demonstrates a change in perception of the role of the pharmacist within the larger mental health and addictions community, a ripple effect of the program.

People know that it's there and that there is support. ...I've gotten phone calls from a lot of people who are really just looking for it, to make those connections and help with the navigation side of it. A lot of them aren't enrolled in the program but we're still able to help with that. So even though there's a lot of people who haven't actually got enrolled I still think there's a number of people outside of the participants who have benefitted from the knowledge and connections we have made with the Bloom Program.

For another pharmacist, filling the range of pharmacist roles that she was required to do in the Bloom Program was exactly what she believes is the role of a community pharmacy.

The biggest advantage is that you’re promoting that whole sense of community, and as a community pharmacist, we’re kind of all about that as well. So, you know, making sure that people have access to resources, you know, they don't have to drive 40 minutes to find help or... Resources were pretty key and knowing that there are supports available, you know, whatever they may be. Yeah that having a sense of community is really important, I think, for most people.

This change in role perception may have also occurred among organizations and agencies that Bloom Program pharmacists either conducted outreach to or in the course of supporting patient navigation. In the survey of community organizations, half of which were community organizations and half of which were Nova Scotia Health Authority, 75% (n=20) said that their opinion about the role of pharmacists had changed. When asked how, most said that they had a greater understanding of the broad range of knowledge and skills a pharmacist has and they see pharmacists as having more roles than just dispensing medications. This shift was demonstrated by some agencies inviting pharmacists to speak to them about the Bloom Program.

Pharmacist I created a relationship, like I said, especially with mental health and addiction services and, you know, I still have that network in place. They were having a quarterly meeting and, you know, they actually thought of me and said, I think, this would be a good opportunity for you to come and explain the program. And it was nice 'cause they sort of took the stance of advocating for the program as well. So obviously that opened up a pretty wide line of communication between, you know, the pharmacy and the resources out in the community.
Program Feedback

Patients, physicians and pharmacists were asked in the surveys and interviews to provide feedback on the Bloom Program. This section provides an overview of the responses from each population group and the feedback is organized into three main sections: 1) value of the program, 2) what was liked the least/program challenges; and, 3) areas for improvement. The survey data was compared with that obtained through the interviews and common themes or discrepancies are commented upon.

Patient feedback

Key findings

- Most patients found the Bloom Program to be ‘excellent;’ or ‘very good’; almost all (97%) said that they would recommend the program to others
- The provision by pharmacists of social support was a highly valued program feature, followed by medication management support.
- Patients’ main advice for program improvements was to continue to deliver the program and to make it available at more pharmacies.

1. Value of the Bloom Program

Illustrated by Figure 19, almost 90% of the Bloom patient survey respondents (n=36) rated the Bloom Program as ‘Excellent’ (69.4%) or ‘Very good’ (19.4%). Only 3% rated it as ‘Fair’ (n=36). Almost all respondents said they would recommend the program to others (92% 33/36 respondents). None stated they would not.

Figure 19: (A) Patient rating of the overall quality of the Bloom Program. (B) Frequency of patients who would recommend the Bloom Program to others (%)

The main reasons why respondents said that they would recommend the Bloom Program to others were that the program provides: 1) high quality care; 2) well-informed education/advice about medications;
3) needed social support; and 4) another needed mental health and addictions service/support in the community. Other responses can be found in Appendix O, Table 1.

Some of the comments that patients wrote in the survey include:

Patients  
*It has opened the door to getting the help I needed.*

*I think it’s great because here in [name of region] there’s no help for gamblers*

*I find it to be a very helpful program and would prove beneficial to anyone who has issues but no support in mental health*

*So many people I know could definitely benefit*

*If it were actually offered on a more long term basis, there is no doubt on how beneficial it would be. We NEED more programs like this and it cannot be stressed enough.*

*The stigma of mental health prevents people from reaching out. The Bloom Program is a safe place to reach out to my pharmacist.*

The overwhelming majority of patients (88.8%) (n=32) said that participating in the Bloom Program made a positive difference in their lives. For most, this was because they were able to access social support from the pharmacist. The second most highly documented response was that the program increased their learning and comfort level with medications. Other responses can be found in Appendix O, Table 2. Some of the comments that patients wrote are as follows:

Patients  
*There’s someone to share how you’re doing in your struggle with your addiction.*

*Through the Bloom Program I have made new connections with health services. Between the two, I have made great improvements in my level of anxiety/social anxiety.*

*I trust my doctor and pharmacist*

As above, the provision of one-on-one support was, by far, the aspect of the Bloom Program that participants mentioned the most, followed up by being treated with respect and developing a comfortable, trusting relationship with the Bloom pharmacist. Other responses can be found in Appendix O, Table 3. Some of the comments that patients wrote include:

Patients  
*Access. Privacy. The pharmacist was absolutely professional and one of the most intelligent persons out there, and polite with it all!*

*I liked that it was very confidential and that the pharmacist actually treated you as a person instead of just a patient or customer.*

*An actual reliable resource in a community that desperately needs more accessible mental health care that is offered and the valuable information gained.*

*How understanding and compassionate they all are.*
2. Liked least about the Bloom Program

Most patients said that there was nothing that they didn’t like about the program or that this question was ‘not applicable’. A few said that they wished the program was more widely available and longer. Other responses can be found in Appendix O, Table 4. Some of the comments that patients wrote for what they liked least about the Bloom are as follows:

Patients  Even if there could be a 3 month revisit to follow-up after completion of the initial 6 months program itself; mainly for those of us in rural communities, it would be both accessible and beneficial to so many? Ongoing care, 1 or 2 visits a year maybe? It’s a great program.

No continuity. Back (now) to where I started before taking part of the Bloom Program. (Also) [t]hat more pharmacies did not get involved in such a beneficial program that would have helped their clients.

Family doctor did not want to be involved. That the program took so long to be introduced.

3. Areas for improvement

Most patient survey respondents indicated that they did not have any advice to give to program managers about the program. Everything about the Bloom Program was ‘good’ or ‘great’. For the few respondents that gave advice, it was mainly to advertise the program more broadly and to either expand the program to other communities/pharmacies or to extend the time that respondents can stay in the program. Some encouraged greater collaboration between pharmacists and physicians.

Some of the comments that patients wrote for the advice they would give to program managers are listed below:

Patients  Follow up appointment with pharmacy for ongoing meds. For those taking multiple meds from multiple doctors/agencies, the pharmacy should be the point which the programs revolve around, so one directive from them, instead of source or doctor.

Keep going with the program! As I believe it can be very helpful for many people who do not know where to go. Also, I feel the Bloom Program could be advertised a little more, I think a lot of people may not know the program is an option. On a final note, I would like to see more cooperation from family Dr's etc. I feel as if the Doctors do not know much about the program or do not want to give it much thought or work with the pharmacist. My pharmacist has attempted to contact my family doctor. He did not seem to want to communicate with my pharmacist, usually giving a one word reply.
Physician feedback

As noted in the methods section, despite multiple attempts to engage physicians in providing program feedback only 11 physicians completed the survey and many questions were not answered. As a result, the quantitative survey results should be considered weak evidence and only the qualitative responses from the survey are reported below.

Overall, the survey responses validated what was learned from the physician interviews. The program held value for improved patient outcomes and further work should be done to facilitate consistent and clear communication between pharmacists and physicians.

Key findings

- Most physicians who provided survey comments stated that they found value in the Bloom Program for their patients and/or that it should be expanded to other pharmacies.
- Better communication between pharmacists and physicians was identified as the main area that could be improved.

1. Value of the Bloom Program

Most physicians responded that “yes” they would recommend the Bloom Program to their patients, however this was not unanimous. One physician indicated that s/he would not recommend the program because s/he saw no measurable benefit in their patient(s) who participated. It was not stated how many of this physician’s patients were in the program. Several physicians provided comments on what they liked most about the Bloom Program:

Physicians  That someone in the community who my patient trusts makes a connection with them in a meaningful way to enhance the overall care.

Role of enhanced collaboration between pharmacists and other care providers; having pharmacists who can help provide consistent messaging.

Patient centered. Reviews the medications as a whole. Educates and supports patients in managing many psychotropic medications

Team work and further support in treating mental health patients.

When asked to describe how the program has benefitted them as health care providers, three physicians provided comment:

Physicians  My patients who participate have greater self-efficacy

Reduced stress and improved monitoring of patients

Better patient’s care
Several physicians made comments about how the Bloom Program in general can make a difference for their patients:

**Physicians**

*They can solve problems upstream before they become expensive disasters.*

*Better communication*

*Brings management of an addiction to the community and give patients the ability to contact for help when needed*

*It cannot in our area as access to primary care already very good, in other areas it may fill that void*

Two physicians also commented on whether the program affected how pharmacists and physicians collaborate?

**Physicians**

*Better communications, understanding the rationales of choosing certain medications*

*Communication. This program also serves to show providers that community pharmacists are front line health care workers, not technicians*

Of the physicians who had experiences with the program, most said that they would recommend the program to other patients. One physician said that more care is better for patients with severe mental illness:

### 2. Program challenges

Physicians were asked to provide feedback on what they liked least about the Bloom Program and some of the challenges they encountered. With respect to what they liked least, two physicians said that there was nothing they didn’t like about the program, one said they wished more pharmacies would participate, and one offered that they only had one patient unwilling to be engaged by the program but this was not due to lack of effort by the pharmacist.

**Physician**

*Only had 1 patient who was fairly unwilling to engage in program. This was despite best efforts of pharmacist and rest of treatment team.*

One respondent said they felt the ‘execution’ of the program was poor and another offered that the cost doesn’t justify the expense.

**Physician**

*The fact it costs money and doesn’t change patient care.*

Physicians provided comment on some of the challenges they experienced with the program. Comments are provided below. Two of the responses reinforce physician interview data suggesting that pharmacist/physician communications can be improved.

**Physicians**

*It was not available at all the pharmacies that my patients go to. As often getting patients to only fill prescriptions at one pharmacy is a challenge, I did not encourage my patients to change pharmacies to access the program as I did not want to disrupt this continuity of care if it existed with a pre-existing pharmacy.*
Awareness in my patient population is low.
Not sure which patients are in program, what is being done with them
Poor communication

3. Areas for improvement

Five physicians provided comment around advice they would give to program managers. Most responses were in the area of increasing awareness to physicians and patients about the program. Information on what patients are best suited for the program was also noted as being helpful. One physician said buy-in from physicians needs to be addressed and one physician said the program should be canceled.

Physicians

*It may not be practical to have the program in all pharmacies, however as a prescriber, knowing clearly the clinics that have this initiative ahead of time, particularly with new patients who do not already have a specified pharmacy, would be helpful. Also, [it] would be helpful to get a sense of who are the patients that are best suited to the program, so again they can be encouraged to access it.*

*Use video vignettes and social media in the marketing of it. More people need to be made aware of this.*

4. Suggestions from interviewed physicians

All of the 10 physicians who were interviewed said that they supported the Bloom Program. These physicians also provided valuable feedback on areas that could be improved, which is summarized below.

**Promotion**

- Promote the program with physicians. Several physicians made suggestions on how this could be done, including have Bloom Program pharmacists come in and speak to physicians/psychiatrists directly about the program. Physicians appreciate the face-to-face contact and education about programs and this will help physicians think about including pharmacists in a patient’s circle of care.

- Make information (pamphlets, etc.) available in physicians’ offices to inform physicians about the program and that physicians can hand out to patients.

- Make it clear to physicians what pharmacies in the community are offering the program.

**Communications**

- Ensure there is a clear referral and pharmacist/physician communication system or protocol developed that is consistently applied. Some physicians weren’t aware, for example, that patients can self-refer.

- Develop a communication system that includes the provision of regular updates to physicians of patient progress. One physician suggested a weekly fax with a summary of patient progress and notification of any advice or counsel that pharmacists gave to patients so that the physician and
pharmacist were giving patients similar counsel.

- Collaborate with physicians/psychiatrist early on in the goal setting process and, as above, ensure there is regular follow-up between the physician and pharmacist on any progress or lack thereof. One physician said he would welcome a pharmacist reaching out to him/her if they are struggling with how to engage a patient early on in the program.

**Use of the program/referrals**

Several suggestions were made for how program referrals could be increased and better facilitated:

- When new prescription come in for a new psychiatric medication or change in dose, pharmacists could view this as a signal that there has been a significant change in the patient’s diagnosis or condition. This could flag for the pharmacist to contact the physician and ask/suggest if this person is a candidate for the Bloom Program.

- Define for the physician who would be good candidates for the program so they can make appropriate referrals. Some physicians weren’t clear if good candidates, for example, were people who are already motivated to make medication management changes or those who are in the pre-contemplative or contemplative stage. Can the pharmacist do motivational interviewing with the patient to help in this regard, and if not, then perhaps it needs to be only patients who are motivated to make changes.

- Make it mandatory that prescribers are informed when a patient is enrolled in the program.

**Pharmacist training**

- Develop a way to ensure that all pharmacist support staff have demonstrable knowledge about and sensitivity to mental health and addictions issues.

**Access equity**

- People who have limited incomes likely get their prescriptions filled at the community pharmacy that has the lowest dispensing fees. The Bloom Program should be offered at these pharmacies to ensure greater equity of access to the program.

**General**

- Continue with the program because of its demonstrated success, but continue to monitor and evaluate it more before it is fully delivered on a provincial scale.
Pharmacist Feedback

Key findings

- Pharmacists highly valued providing more comprehensive care to patients because they saw the need and they valued providing better quality care, which they also found professionally rewarding.
- Issues such as program paperwork requirements, scheduling patient appointments when there is pharmacist overlap, and/or supporting complex/high patient needs for social support were three program areas that were challenging for many pharmacists.
- Pharmacists want to see the program continue and feel it needs to be better promoted within the public and among the physician and health care provider community.

1. Value of the Bloom Program

Based on themed qualitative responses in the pharmacy staff surveys (n=25), three aspects of the program were liked by pharmacists the most: 1) providing individualized one-on-one social support and better interactions with patients; 2) supporting improved patient outcomes; and 3) the program allowed them to deliver better care to people living with mental health and addictions problems. Other responses can be found in Appendix O, Table 5. Some of the comments that pharmacists wrote were:

**Pharmacists**

The Bloom Program provides a net to stop people from slipping through the cracks in the current mental health systems.

The program has resulted in the staff learning more about mental health issues and the resources that are available which I feel will help our community in the long run. … Patients seem more willing to discuss or hear about options when presented as a program and not just a suggestion from us on a certain issue.

The Bloom Program allowed us to spend extra time with patients who needed it and help them connect with other health care providers when necessary. I also like the recording system for patient encounters as it helped keep all staff up to date on the patients’ status.

… people are more comfortable to come to you with other things that may not even be related to mental health.

The enrolment allows us to get a thorough history and background on our patients that we may not get otherwise.

Pharmacists were asked to identify any benefits they experienced related to their participation in the Bloom Program. The overwhelming response to this question could be themed as an increased understanding of the issues facing people living with mental health and addictions, and/or more prepared/better able to provide them with higher quality care.

The following quote summarizes many of the responses to this question.

**Pharmacist**  
I have seen several benefits at our location from this program. The first being that I
believe it has improved our relationship with several patients. It has increased the awareness amongst staff about mental health resources that maybe they were unaware of before. I also think that it has resulted in staff being more cognizant of the challenges that mental health patients face. It has opened their eyes that there are more people living with mental health issues that are not accessing the resources that they need than they were aware of. It has given staff confidence in opening a conversation with someone about helping them that I believe would not have taken place prior to the program.

2. Program challenges

Pharmacists were asked to identify what they liked least about the Bloom Program. Four themes of relatively equal importance emerged from the qualitative data (Table 17).

Table 17: Themed responses of what pharmacists liked least about the program (n=25)

<table>
<thead>
<tr>
<th>Theme</th>
<th># of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paperwork was sometimes too time consuming</td>
<td>6</td>
</tr>
<tr>
<td>Convincing patients of benefits/frustrations with ‘no-shows’</td>
<td>5</td>
</tr>
<tr>
<td>Scheduling challenges</td>
<td>4</td>
</tr>
<tr>
<td>Patient interactions could be too time consuming</td>
<td>4</td>
</tr>
<tr>
<td>Lack of physician buy-in/collaboration</td>
<td>2</td>
</tr>
<tr>
<td>Need more advertising</td>
<td>2</td>
</tr>
</tbody>
</table>

Some of the comments from pharmacists include:

Pharmacists   That there is not enough awareness to the general public that this is available to them. Really need to get this out there. Promote the heck outta it.

Sometimes there was difficulty spending time with Bloom Program patients as typically no pharmacist overlap. Could be stressful to have an initial encounter and set up with a patient during busy hours.

I'm not sure how on board the doctors are with it. It seems a little less collaborative than it is should be.

Sometimes dealt with difficult topics in the counsel room that may border psychology vs. pharmacy. Difficult to explain to patients what is appropriate for psychology vs. pharmacy. Would always refer when necessary.

Pharmacists were also asked to identify any challenges they experienced as a result of participating in the Bloom Program. Most of the challenges were related to time demands and having to schedule patients when there was pharmacist overlap. Because it was difficult to quantify the responses, only the themes are provided in Table 18 below.
Table 18: Themed responses of challenges pharmacists experienced providing the Bloom Program (n=25)

<table>
<thead>
<tr>
<th>Themed responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacy staff scheduling problems compounded by patients who don’t show up for appts.</td>
</tr>
<tr>
<td>Time requirements for Bloom Program delivery can be too much within current pharmacy structure</td>
</tr>
<tr>
<td>Access problems to adequate mental health and addictions services in communities means that Bloom pharmacists are addressing a service gap that they may not be able to fill because of lack of time and because the work is outside their scope of practice (i.e. patients want counseling, not non-specific support).</td>
</tr>
<tr>
<td>Pharmacists can’t conduct all of outreach and navigational support patient need.</td>
</tr>
<tr>
<td>There isn’t enough interest on the part of some health care providers to collaborate with pharmacists.</td>
</tr>
</tbody>
</table>

And, some of the comments that pharmacists wrote in the survey are as follows:

Pharmacists  

Being able to draw the line with patients during their appt. on seeing the pharmacist for medication needs and referrals. Most patients were on long wait lists to see counselors and found the Bloom appts. filled that void in the meantime. It puts the pharmacist in a position of listening empathetically but also being in a position outside their scope of practice and using time within the pharmacy that shouldn’t have been allocated to that. I found it challenging that the only feedback I received during most of the program was solely from the patients. Though I entered the program thinking I would be involved in a health care team program, I did not receive feedback from family physicians, who would be primarily responsible for the patients care.

It is hard to schedule patients for appointments with staff overlap and busy dispensary tasks. Sick days, vacations, and staff absenteeism make it almost impossible to deliver the program and dispense in a safe manner on some days.

It has also been eye opening to see the lack of support that some people are receiving and how difficult it can be to get them what they truly need to be successful.

Patients would gravitate towards the pharmacy in moments of acute psychiatric illness for counsel. One patient resulted in EHS coming to the store. Made me more aware of the need for mental health first aid.

3. Areas for improvement

Pharmacists were asked to provide advice to program managers about the program. The advice was primarily related to three themes outlined in Table 19.


**Table 19:** Themed responses of advice for program managers from Bloom Program pharmacists (n=25)

<table>
<thead>
<tr>
<th>Themes from the responses to: ‘What advice would you give?’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expand to more pharmacies; the need and demand for such a program is very high.</td>
</tr>
<tr>
<td>Increase profile of the program to aid in patient recruitment. More resources to help patients and other service providers understand the intent</td>
</tr>
<tr>
<td>Increase interest from/collaboration with other healthcare providers.</td>
</tr>
<tr>
<td>Provide more resources to meet the need for social support.</td>
</tr>
<tr>
<td>Review funding model to ensure it reflect the costs of delivering the program</td>
</tr>
</tbody>
</table>

Some of the comments that pharmacists wrote were:

- **Pharmacists** *Expand, expand. This is a win/win situation and will also take the stress off of an already stressed medical field. We are all a part of the team to increase awareness and have a lot of great pharmacists willing to jump in with their team and make this a huge success. Get it out there. There is so much room for growth.*

- *Not to underestimate the benefit of one-to-one patient counsel and monitoring with regards to mental health disease. When a patient is simply dispensed a new medication related to their mental health without a clear understanding of expectations and monitoring, the failure rate seems to increase. We were able to troubleshoot on many occasions to modify therapy and seemingly increase the rate (or move a patient closer) to remission.*

- *Counseling services, having someone to talk to seemed to be the greatest need that patients required. If Bloom was to grow/expand/evolve it would be a novel idea to have (funding)/ access to/counseling services that visit the pharmacy on a routine basis (possibly students from a university that need clinical hours?)*

- *The current funding model does not address the rising cost of pharmacist wages to deliver the program successfully in rural settings.*

**Pharmacist program feedback from interviews**

The evaluation process included interviewing 20 pharmacists from 20 of 23 pharmacies who provided rich information on their experiences delivering the Bloom Program. This data will be analyzed in a secondary pharmacist process evaluation to inform and support program improvements and expansion. Given the purpose of this evaluation report, some high level identification of feedback and key issues is warranted in order to assess the feasibility of continuing and expanding the program from a pharmacist’s perspective.
**Rewarding work**

Overall, all pharmacists who were interviewed were highly supportive of delivering the program, both because they saw significant need for it within the community for people living with mental health and addictions problems, and because they found working within an expanded scope of practice very rewarding as health care professionals.

**Pharmacy compensation**

With respect to pharmacy compensation for delivering the program, of the 20 pharmacists interviewed, 11 said that they felt it was adequate compensation, seven weren’t sure if it was or not, one said it wasn’t, and one did not answer the question. Most pharmacists appeared to believe that patients often used up more than the allotted time early on in the program, but less so as the program continued and their issues became improved or resolved. Some patients used up more time than others, and in the end, it usually worked out. Pharmacists also acknowledged that there is indirect revenue that comes in to the pharmacy because the program helps build their reputation within the public for delivering a good service, which attracts business.

**Advice to program managers**

Most of the pharmacists interviewed said that they felt the program should continue and/or expand because there was such a high need for it in the community. With respect to specific advice, the follow represents some general input provided.

- Promote the program more among the local family physician and psychiatrist community to generate referrals and to support increased communication and buy-in for the program.

- Identify among current Bloom pharmacies what is working really well, and share and refine those practices so that other pharmacies can learn from the experiences of others. This will help ensure the program is optimally delivered for both pharmacies and patients. A few pharmacists said that they would have welcomed additional opportunities to learn more about mental health and addictions issues commonly encountered in their Bloom Program patients. For example, they stated that they would participate in a facilitated exchange of experiences and information involving several Bloom Program pharmacists, thereby going beyond the online discussion forum provided.

**Areas for improvement**

Pharmacists identified some program areas where they felt the processes could be reviewed and or issues that could be addressed to improve the program. These include:

- Patient numbers: Identifying the right number of patients that the pharmacy can serve to ensure program quality assurance expectations are met. This number will be pharmacy specific and be influenced by pharmacist staff complement. Some pharmacists said that they learned how many patients they could adequately support over the duration of delivering the program.

- Scheduling: Scheduling patient appointments when there is pharmacist overlap is necessary but can be difficult given the other demands on pharmacists’ time with dispensing responsibilities.
For some smaller pharmacies with very limited pharmacist overlap time, this was a challenge. Other pharmacies did not raise this as an issue and they said that they could have handled more patients.

- Communication with physicians: Developing support for the program with local physicians was seen by all pharmacists as very important for the program’s success. Some pharmacists said they had strong support from local physicians and could build upon already well-established relationships, while others felt that they had no interest or support from physicians.

- Client mix: Some patients will require more support than others and providing support to pharmacists about how to balance the right mix of client diagnosis complexity with pharmacy staff resources is important. Some pharmacists said that at first they had many patients who had complex needs, which ended up taking more pharmacist time than what they had originally anticipated. Each pharmacy has a different staff complement so finding the right balance can be a challenge and pharmacists may need help being prepared for this and knowing how to deal with this if it becomes an issue.

- Resource library: Reviewing whether the public resource library is a necessary feature for every pharmacy may be warranted. Half (10) of the pharmacists interviews said the public resource library in the pharmacy was worth the investment while five said it wasn’t utilized enough to justify the expense. For those who supported it, they said it was used by the general public and patients, and it helped to identify the pharmacy as supportive of mental health issues.

- ‘No-shows’: Because pharmacists don’t typically make appointments with patients, some were not used to patients cancelling appointments or not showing up. This issue could be something addressed in a Bloom Pharmacy best practices sharing forum.

- Community outreach: While pharmacists valued the opportunity to establish linkages with local mental health and addictions services and supports, some pharmacists expressed frustration from the lack of response and/or interest by some of these agencies. This made delivery of the program’s navigational component more difficult.

Some pharmacists also identified what could be termed key ingredients for the program’s success, which included: supportive pharmacy owner, interested staff, and ongoing program support (provided in this project by the implementation team).
Discussion

The various sources of data, when taken together for this outcome evaluation, indicate that the Bloom Program demonstration project has been successful in achieving all of its short-term patient outcomes and several of its medium-term outcomes. A summary of these findings and their implications are discussed here.

There were some initial challenges with making the program known within the communities where it was offered and with helping people understand how it would achieve its objectives. These challenges are to be expected in demonstration projects that are offered in limited settings and that test new and innovative approaches to address complex health problems, complexity that is almost always present in caring for people with mental health and addictions problems. These challenges are also to be expected when attempting to shift widely held views about the role community pharmacists can play in the care and support of people living with mental health and addictions problems. As was clear from survey and interview data, pharmacists are traditionally viewed in their medication dispensary role and to shift that to include their optimized scope of practice takes time.

Once the Bloom Program was fully underway, it became well-utilized by the target population: 90% of enrolled patients returned for multiple follow-up meetings with a pharmacist, averaging 5-6 meetings per patient over the six-month program period. This high retention rate speaks well to the high quality of services that patients received in addition to the finding that close to 4 in 5 medication issues were resolved by the time patients were discharged. From the outset, a chartered principle of the program was to support patient recovery and discharge from the program. This appears to have been achieved for the majority of patients entering the program.

The Bloom Program clearly provided increased access to mental health and addictions services and supports for enrolled patients and it did so in different ways. First, patients had access to a new program that focused on providing individualized medication therapy management for patients who had, in many cases, complex psychiatric and physical health problems. The approach to the identification, prioritization, and management of medication and related health issues was patient-centred, evidence-informed, and holistic. Many of the Bloom Program patients had multiple self-identified mental and physical (e.g., cardiovascular disease, pain, diabetes, respiratory disease) health problems and were taking several medications that included multiple psychotropic medications as well as pharmacotherapies for physical illnesses. As one physician articulated, psychiatric patients with complex needs require significant supports to live well in the community. They benefit from having multiple people involved in their care who they can access on a regular basis and who together can help them stay motivated to make and maintain positive changes. Pharmacists are logical members to include in a patient’s circle of care because of their unique community health care setting, their access to patients, and their knowledge, expertise and skills.

The second manner in which the Bloom Program increased access to mental health and addictions services is through the systems navigation support pharmacists provided to patients. The data clearly demonstrated that patients used and appreciated the support pharmacists gave to help them navigate what are generally complex systems of mental and physical health care. The Bloom Program explicitly recognizes that individuals with mental health and addiction problems require a range of supports that no single agency or health care provider can provide independently. The Bloom pharmacy served as a
welcoming, neutral community health care hub that a vulnerable, highly stigmatized population felt comfortable and safe accessing.

The third way that the program increased access was by providing interim support for individuals who were waiting for, had difficulty accessing, and/or were transitioning to other mental health and addictions services. Many Bloom Program patients were grateful to find a caring, compassionate health professional at their local pharmacy who made themselves available to listen. This type of general emotional and psychological support is an inherent feature of pharmacists’ care of all their patients. It was enhanced by the structure of the Bloom Program and frequently accessed by patients.

Collaboration with other members of the patient’s circle of care was another foundational principle of the program and increased collaboration was a medium term outcome. Because pharmacists already work closely with physicians and other prescribers, it was hypothesized that the program’s structure would deepen those relationships and support improved communications and collaboration for the purposes of resolving patient prioritized medication and health issues. The survey and interview data indicated that there was a strong need and desire by physicians and pharmacists to communicate effectively and a mutual recognition that this will result in better patient care and improved health outcomes. Patients indicated that they appreciate that health care providers have different but complementary roles to play, understand the importance of health care provider collaboration, and want to see more of it. This evaluation found many examples where collaboration resulted in improved patient health outcomes and program feedback on how communication processes can be improved, which will strengthen this critical aspect of the program.

The Bloom Program structure supported pharmacists to work more optimally within their scope of practice by providing comprehensive, longitudinal patient care. As noted above, it was expected that there would be a change in the perception of pharmacists from solely their dispensary role to one that includes providing enhanced medication therapy management, patient and care provider education, navigation, advocacy, and social support. It was demonstrated that, as patients experienced this level and depth of care, they would come to see and utilize pharmacists in a more complete health provider role.

**Implications**

When people living with mental health and addictions problems see their local pharmacist as someone else that can provide them with safe, individualized mental health and addictions care, capacity to care for people within this population is increased across the province. Many of the Bloom Program patients presented with complex psychiatric illness compounded with multiple physical health problems. It is foreseeable that if the program was widely available to people across the province, many issues that currently contribute to congesting mental health and addictions and primary care services could be addressed and resolved more efficiently and fewer patients would advance to the stage where they rely on more costly care, including emergency department visits and hospital admissions. This has positive and potentially significant implications for improving the efficiency and cost-effectiveness of the health care system. One physician saw this potential and referred to the Bloom Program as preventative mental health care treatment service.

*They [pharmacists] can solve problems upstream before they become expensive disasters.*
Integrating the Bloom Program into the current health system will not replace any existing services or supports, but it can complement them by tapping into the full scope of pharmacist practice and taking advantage of the unique position pharmacies have in local communities, particularly rural and remote ones. It is well recognized that pharmacists have significant expertise in pharmacotherapy. As the province continues to promote and expand collaborative health care practices, the Bloom Program is structured to support and operate effectively within that model of patient-centered care and make important contributions to improving the lives of people living with mental illness and addictions in Nova Scotia.

Recommendations

Patients, physicians, pharmacists, and mental health and addictions organizations support the continuation and expansion of the Bloom Program along with greater effort to raise awareness of the program. It is also recommended that the program be better integrated and aligned with new and existing mental health and addictions services and become part of the province’s overall strategy toward improved mental health care and outcomes. Further evaluation of the program, as it evolves from a demonstration project to a more secure program with an adjusted governance structure, is warranted and would facilitate the evaluation of long-term outcomes and health economic analyses.

It is the opinion of the Bloom Program Steering Committee that this program should become a program governed and administered by the Nova Scotia Health Authority.

To avoid program interruption and the added costs of re-starting the program, transition funding supporting the continuation of the program is needed for January 1, 2017.
Appendices

A. Bloom Program Committee Membership
B. Bloom Program Project Charter
C. Required pharmacy activities to deliver the Bloom Program
D. Pharmacist Training Agenda (sample)
E. Bloom Program Pharmacy Audit Process
F. Enrolment Form (guide)
G. Initial Assessment Form (guide)
H. Contact Preferences Form (guide)
I. Progress Notes Form (guide)
J. Discharge Form (guide)
K. Logic Model I (original)
L. Logic Model II (revised June 2016)
M. Infographic (community linkages)
N. Pharmacist environmental scan of community-based organizations
O. Themed responses from patient and pharmacy staff surveys
Appendix A: Bloom Program Committee Membership

A. Bloom Program Steering Committee: Organizations and Members

<table>
<thead>
<tr>
<th>ORGANIZATIONS</th>
<th># Reps</th>
<th>REPRESENTATIVE(S) NAMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacy Association of Nova Scotia</td>
<td>1</td>
<td>Allison Bodnar</td>
</tr>
<tr>
<td>Nova Scotia College of Pharmacists (non-voting)</td>
<td>1</td>
<td>Shelagh Campbell-Palmer</td>
</tr>
<tr>
<td>Psychiatrist</td>
<td>1</td>
<td>Dr. Sabina Abidi</td>
</tr>
<tr>
<td>Family physician</td>
<td>1</td>
<td>Dr. Maria Alexiadis (replaced Dr. John Paleta)</td>
</tr>
<tr>
<td>Doctors Nova Scotia</td>
<td>1</td>
<td>Karen Pyra (non-voting)</td>
</tr>
<tr>
<td>Community members</td>
<td>2</td>
<td>Pam Flight and Jan Davison</td>
</tr>
<tr>
<td>Department of Health and Wellness</td>
<td>1</td>
<td>Tony Prime (replaced Lindsay McVicar)</td>
</tr>
<tr>
<td>Community pharmacists</td>
<td>2</td>
<td>Glenn Rodrigues, Lennie Walser</td>
</tr>
<tr>
<td>Nova Scotia Health Authority, Addictions &amp; Mental Health</td>
<td>1</td>
<td>Derek Leduc</td>
</tr>
<tr>
<td>Ex-officio members (non-voting)</td>
<td>3</td>
<td>David Gardner, Andrea Murphy, Patricia Murray</td>
</tr>
</tbody>
</table>

B. Bloom Program Evaluation Advisory Committee: Members and Organizations

<table>
<thead>
<tr>
<th>Committee member name</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karen Pyra</td>
<td>Doctor’s Nova Scotia</td>
</tr>
<tr>
<td>Derek Leduc</td>
<td>Nova Scotia Health Authority</td>
</tr>
<tr>
<td>Pam Flight</td>
<td>Community member</td>
</tr>
<tr>
<td>Allison Bodnar</td>
<td>Pharmacy Association of Nova Scotia</td>
</tr>
<tr>
<td>Dr. David Gardner and Dr. Andrea Murphy</td>
<td>Bloom Project Leads, Dalhousie University</td>
</tr>
<tr>
<td>Lisa Jacobs (replaced Jenn Dixon)</td>
<td>Bloom Program Evaluator</td>
</tr>
</tbody>
</table>
Appendix B: Bloom Program Project Charter

PROGRAM CHARTER

THE BLOOM PROGRAM:
Community pharmacy teams partnering with Nova Scotians living with mental illness and addictions in support of improved health and wellbeing.

PRINCIPLES
The Mental Health and Addictions Community Pharmacy Partnership Program (the Bloom Program) is:

• Patient-centred
• Community oriented
• Evidence-informed
• Holistic
• Collaborative
• Dedicated to informed patient care
• Supportive of patient recovery and discharge from the program

COMMITMENTS
The Bloom Program and its pharmacists and pharmacies will:

• Develop and maintain linkages with community mental health organizations
• Provide outreach activities to support the local mental health community
• Enhance collaboration and communication with other health care providers, especially primary care and addictions and mental health care services
• Provide local and regional mental illness and addictions information and resources
• Provide education and training to all pharmacy team members in participating pharmacies
• Provide enhanced clinical services to registered patients including navigation, triage, and in-depth medication therapy management
• Participate in regular program assessment and improvement
• Be fiscally responsible with dedicated public funds
Appendix C: Required pharmacy activities to deliver the Bloom Program

Pharmacies were considered eligible to deliver the Bloom Program for enhanced mental health and addictions services upon demonstrating that they complete the following eligibility criteria outlined below.

<table>
<thead>
<tr>
<th>The pharmacy will:</th>
<th>Additional details:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Complete a local environmental scan</strong> of mental health and addictions services and support groups in their community.</td>
<td>Bloom Program pharmacists are to be familiar with local mental health and addictions resources in their communities to enable them to inform patients of these resources and facilitate the patient’s access to them.</td>
</tr>
<tr>
<td>2. <strong>Demonstrate linkages with local mental health and addictions support groups</strong></td>
<td>Applicants for the Bloom Program are to demonstrate they have or are in the process of establishing linkages to local organizations to meet this commitment.</td>
</tr>
<tr>
<td>3. <strong>Mental health and addictions resource centre: develop and maintain a mental health and addictions resource centre accessible to the public</strong></td>
<td>Each Bloom pharmacy’s resource centre is to support access to: 1) information about local mental health and addictions supports, resources, and health care services; 2) tools and resources to support navigation of the mental health and addictions resources and services; 3) information about mental illness and addictions; and 4) information regarding treatment of mental illness and addictions.</td>
</tr>
<tr>
<td>4. <strong>Inform local health providers about the Bloom Program at your pharmacy</strong></td>
<td>Bloom Program patients will require enhanced collaborative care involving pharmacists and local health providers. To facilitate the building of these collaborations Bloom pharmacists are to meet with and/or distribute print materials informing local health providers (e.g., family physicians, psychiatrists, psychologists, nurse practitioners, social workers, care workers)</td>
</tr>
<tr>
<td>5. <strong>Notify the public that the Bloom Program is available at your pharmacy</strong></td>
<td>It is important that people are able to learn independently about the Bloom Program and its availability. Participation in the Bloom Program is to be noticeable to the public in the pharmacy by use of Bloom Program signs and information pamphlets displayed in public areas.</td>
</tr>
<tr>
<td>6. <strong>Maintain an in-pharmacy health professional library of essential mental health and addictions and psychotropic resources</strong></td>
<td>Pharmacists will need direct access to up-to-date resources that support their ability to provide evidence-based, patient-centred care for people in the program.</td>
</tr>
<tr>
<td>7. <strong>Comprehensive live training of a nominated lead pharmacist for the Bloom Program</strong></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td></td>
</tr>
<tr>
<td>A nominated pharmacist will receive a certificate of completion from the comprehensive collaborative Bloom training program involving expert pharmacists, people with lived experience of a mental illness and addictions, simulated patients, and psychiatrists. Training includes assessments before and after the live training day as well as a comprehensive set of readings and online videos.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8. <strong>Demonstrate that pharmacy staffs have the required program-related training and orientation.</strong></th>
</tr>
</thead>
</table>
| Pharmacists and dispensary staff working in a Bloom Pharmacy are to be fully oriented to and functional with the clinical and procedural expectations of the Bloom Program. Front store and other employees should be made aware of the Bloom Program, its core components, and the charter.  
A Bloom Program In-Pharmacy Training Manual guides staff training |

<table>
<thead>
<tr>
<th>9. <strong>Establish policies and procedures within the pharmacy related to the Bloom Program.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacies are to demonstrate a secure, organized system (either paper-based or electronic) for maintaining patient records and information that are congruent with practice regulations related to patient information and documentation.</td>
</tr>
</tbody>
</table>
## Bloom Program Training Day

**Friday September 25<sup>th</sup> 2015,**

**Boardroom 14, Barrington Tower, Scotia Square**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 AM</td>
<td>Coffee &amp; registration</td>
</tr>
<tr>
<td>8:30 AM</td>
<td>Icebreakers &amp; Introductions</td>
</tr>
<tr>
<td>8:45 AM</td>
<td>All About Bloom: Charter, Project review, Bloom Q&amp;A</td>
</tr>
<tr>
<td>9:30 AM</td>
<td>Case: Sleepless Sally - David</td>
</tr>
<tr>
<td>10:15 AM</td>
<td>Break</td>
</tr>
<tr>
<td>10:30 AM</td>
<td>Pharmacy Participation: Application, Recruitment, and Retention</td>
</tr>
<tr>
<td>11:25 AM</td>
<td>Case: Sally again - Jason</td>
</tr>
<tr>
<td>12:15 PM</td>
<td>Lunch</td>
</tr>
<tr>
<td>1:15 PM</td>
<td>Case: Jerry arrives - Sabina</td>
</tr>
<tr>
<td>2:30 PM</td>
<td>Operationalizing Bloom (recruitment, retention, documentation, website, discussion forum) – David, Paul, Andrea</td>
</tr>
<tr>
<td>3:00 PM</td>
<td>Break</td>
</tr>
<tr>
<td>3:15 PM</td>
<td>Operationalizing Bloom, continued</td>
</tr>
<tr>
<td>4:25 PM</td>
<td>Closing remarks</td>
</tr>
<tr>
<td>4:30 PM</td>
<td>Close</td>
</tr>
</tbody>
</table>
Appendix E: Bloom Program Pharmacy Audit Process

On-site Audit

Acceptable

Administrator provides lead Bloom pharmacist with letter outlining required improvements and expectations.

Not Acceptable

If appropriate, administrator informs NSCP

Within 2 weeks of receiving letter, pharmacist communicates action plan to address concerns with timeframe for completion.

Administrator offers and coordinates support: oversight, peer-to-peer, training, etc.

Within 12 weeks, pharmacist demonstrates resolution of issues. Administrator reassesses.

Extension offered under exceptional circumstances, approved by steering committee chair.

Administrator provides written confirmation to pharmacist that all conditions have been met satisfactorily.

Administrator notifies steering committee chair that the pharmacy has not met the requirements and initiates removal process from Bloom.
APPENDIX F: Enrolment Form (guide)

Bloom Enrollment

Date (Y-M-D): 2014-11-18  Bloom member #: 001-0056

This form is based on Vignette 4. Every page of every form must have the date and the patient’s number.

Personal Information

Name Emily Jones  Tel. 902-555-5555  MSI # 0001 111 111  Expire 2016 Aug 31

Address Bennett Hall (residence), 22 University Avenue, Halifax  D.O.B (Y-M-D) 1995-09-27  Gender: M ✓ F

Bloom Program Criteria

Must check at least one box in each column to be eligible

High priority diagnoses:
- Psychosis (e.g., psychosis NOS, schizophrenia)
- Bipolar and related disorders (e.g., bipolar disorder types 1 and 2)
- Depression disorders (e.g., major depressive disorder)
- Anxiety disorders (e.g., social anxiety disorder, panic disorder, post-traumatic stress disorder, etc.)
- Obsessive-compulsive and related disorders (e.g., OCD, body dysmorphic disorder)
- Trauma and stress related disorders (e.g., post-traumatic stress disorder)

Other diagnoses
- Feeding and eating disorders (e.g., anorexia nervosa, bulimia nervosa)
- Sleep-wake disorders (e.g., insomnia disorder with episodic, persistent, or recurrent specifier (including chronic insomnia), narcolepsy, circadian rhythm sleep-wake disorder)
- Personality disorder (e.g., borderline personality disorder)
- Neurodevelopmental disorders (e.g., intellectual disability disorder, Autism, attention-deficit/hyperactivity disorder, tic disorder)
- Disruptive, impulse-control, and conduct disorders (e.g., oppositional defiant disorder, intermittent explosive disorder, conduct disorder)

✓ Substance-related and addictive disorders (e.g., alcohol use disorder; opioid use disorder (not methadone); sedative, hypnotic, or anxiolytic use disorder)

Agreement

You have been invited to join the Bloom Program at this pharmacy. This is a Mental Health and Addictions Community Pharmacy Partnership Program. By checking the boxes and signing and dating this form you are indicating that you are doing so by your own choice.

I have discussed with my pharmacist and I understand that:

1. I can expect from my Bloom pharmacy:
   - Mental health and addictions systems navigation, resources, and access support;
   - Triage of care to appropriate health providers as indicated;
   - In depth medication therapy management involving enhanced monitoring and overall assessment of mental and physical health disorders and their treatments;
   - Collaboration with patients, families, and other care providers to identify and resolve mental and physical health problems;
   - Education consultations regarding mental health problems and their treatments;
   - Real-time support in person or via telephone during posted pharmacy operations; and
   - That the confidentiality of my personal and health information will be a priority.

2. My Bloom pharmacy is being paid by the government of Nova Scotia to provide me these kinds of services

Go through these points with the patient to ensure they understand how the program works and what to expect from enrolling in it.
Bloom Enrollment

Date (Y-M-D): 2014-11-18  Bloom member #: 001-0056

☐ I am eligible to receive these enhanced services for 6 months unless I choose to leave the program early.

☐ I may continue in the program longer than 6 months if necessary.

☐ I will be asked to complete a program discharge form with my pharmacist when I leave the program.

☐ I will notify this pharmacy if I am unable to participate in the program temporarily or indefinitely (e.g., admitted to hospital, moving away).

☐ I understand that pharmacies participating in the Bloom Program are subject to quality assurance audits. It is possible that someone conducting an audit on behalf of the Department of Health and Wellness will review my file at the pharmacy. No information identifying me will leave the pharmacy at any time during or after the audit.

☐ I understand that the Department of Health and Wellness will be conducting an evaluation of the success of the Bloom Program. This may require someone accessing my file and collecting de-identified information to be reviewed and analyzed outside of the pharmacy. This means I cannot be identified as a participant in the program by anyone involved in the evaluation outside of my pharmacy.

☐ I have received a copy of the Bloom Program charter.

Patient signature: Emily Jones  Pharmacist signature: Sandra Bullock  Date: Sep 15, 2014

Duration: 5 mo.
# APPENDIX G: Initial Assessment Form (guide)

## Bloom Initial Assessment

Date (Y-M-D): 2014-11-18 Bloom member #: ____

### Personal information

<table>
<thead>
<tr>
<th>Name</th>
<th>Emily Jones</th>
<th>E-mail</th>
<th>Age</th>
<th>Note:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tel. Home</td>
<td>902-555-5555</td>
<td><a href="mailto:emily.jones@hotmail.com">emily.jones@hotmail.com</a></td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Medication insurance:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>✓</td>
<td>Private</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Home life

- Alone □
- With family/friends □
- Group home □
- Other □

Note: In university residence with 1 roommate

### Status

- Single ✓
- Married/common law □
- Divorced □
- Separated □
- Children: □
- Other: □

### Work & school

- Employed □
- Unemployed □
- In school ✓
- High school not completed □
- High school graduate ✓
- College diploma/university degree or higher □

Demographic information: We want to inform the government who is benefiting from this program. Also, this information will allow you to get to know the patient well to better understand their individual needs and circumstances.

### Referral source

- Pharmacist (here) ✓
- Family physician □
- Psychiatrist □
- Other health provider: □
- Other: □

### Health team

- Family physician: Dr. Leduc
- Location: In hometown (will obtain name)

- Psychiatrist
- Case worker

- Pharmacies
  - Jones Pharmacy
  - In hometown

- Other: Dr. A. Smith
  - University health clinic

### Personal supports

#### People

- Melissa Baker
  - Locations: local
  - Relationships: roommate

- Alixo Lewis
  - Locations: local
  - Relationships: residence supervisor

#### Organizations

- Support groups, outreach, etc.

#### Activities

- Intramural soccer
  - Routine: Plays every Wednesday at 10:00 pm
  - Notes: Things the patient is involved in that support their mental and physical health.

Version 2014/08/25
Bloom Initial Assessment

Use of substances

<table>
<thead>
<tr>
<th>Class</th>
<th>Pattern of use</th>
<th>Class</th>
<th>Pattern of use</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Nicotine/tobacco</td>
<td>No</td>
<td>☐ Others</td>
<td>In high school used</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Stimulants:</td>
<td>other kids Ritalin,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>cocaine, crack, meth-</td>
<td>recently overusing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>amphetamines); Club</td>
<td>amphetamine</td>
</tr>
<tr>
<td></td>
<td></td>
<td>drugs (MDMA,</td>
<td>prescription.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GHB); Dissociative</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>drugs (ketamine,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PCP, s-xes, DM);</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hallucinogens (LSD,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>mescaline); Inhalants</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(solvents, gas)</td>
<td></td>
</tr>
<tr>
<td>☐ Alcohol</td>
<td>On weekends with friends - 3 or</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 drinks, 2x/week</td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Marijuana</td>
<td>Occasionally (1x/month)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ Opioids</td>
<td>In past at high school parties</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Diagnoses

<table>
<thead>
<tr>
<th>Mental Health</th>
<th>Addictions</th>
<th>Physical Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADHD (diagnosed 4 weeks ago)</td>
<td>Past hx of Rx medication abuse in high school. Feels she has an “addictive personality”</td>
<td>Generally well</td>
</tr>
</tbody>
</table>

Medications

<table>
<thead>
<tr>
<th>Current</th>
<th>Past</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Name</td>
</tr>
<tr>
<td>Adderall XR</td>
<td></td>
</tr>
<tr>
<td>Dose</td>
<td>Dose</td>
</tr>
<tr>
<td>10 mg</td>
<td></td>
</tr>
<tr>
<td>Schedule</td>
<td>Indication</td>
</tr>
<tr>
<td>OD q am</td>
<td>ADHD</td>
</tr>
<tr>
<td>Indication</td>
<td>Reason for d/c</td>
</tr>
</tbody>
</table>

| This should be viewed as general information. You can also use your pharmacy medication records. Record medications from other pharmacies, OTC/herbal products, etc. |

Other contributors to health & wellness (other therapies/exercise/diet & nutrition/etc)

Non-pharmacological therapies that support the patient. Avoid leaving this section blank; write “did not identify other therapies”
**Bloom Initial Assessment**

**Assessment of problems**

1. ADHD - non-stimulant medication required due to heavy stimulant overuse.
2. Non-pharmacological stress management strategies required.

Problems and plans should be determined collaboratively between the patient and the pharmacist. They should ideally be prioritized in terms of importance to the patient.

**Plan**

**Pharmacist - Patient**

*When?* First follow-up with EF tomorrow in the pharmacy.

*About what?* Pick up new medication (TSO), fill out additional Bloom forms with EF.

**Pharmacist – Health Professional**

*When?* Call Dr. Smith to discuss non-stimulant alternatives (e.g., atomoxetine) given history and EF's current issues.

*About what?* Likely recommend switch to atomoxetine 40 mg daily.

**Other**

To do/reminders:
1. Review evidence for non-stimulant ADHD treatments and risks and benefits. Prepare recommendations & rationale for Dr. Smith.
2. Look for resources (e.g., website, community group) for stress management.
3. Remember to ask EF to look into whether university counseling services provides stress management sessions.

---

Pharmacist initials: HF. Duration: 20 min.
APPENDIX H: Contact Preferences Form (guide)

Bloom Patient Contact Preferences

Date (Y-M-D): 2015-08-31 Bloom member #: 002-0000

This form is based on Vignette 5.

Every page of every form must have the date and the patient’s number.

The Personal Health Information Act of Nova Scotia applies to all health providers including pharmacists. The confidentiality of patient health information is of the highest priority to pharmacists. This form will be regularly updated to ensure that pharmacists know who they have permission to contact related to the patient’s health.

Personal information

Name: Estelle Humphrey
D.O.B (Y-M-D): 1936-03-15
Gender: M ✓ F

These are people who are named as the patient’s Circle of Care. Health information may be shared with these individuals when necessary. The patient may change these at any time. The patient may name any individual with whom they do not want their information to be shared.

Sharing Health Information

<table>
<thead>
<tr>
<th>Name</th>
<th>Relationship</th>
<th>Contact information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cindy Porter</td>
<td>Daughter</td>
<td>902-888-8888</td>
</tr>
<tr>
<td>Michael Humphrey</td>
<td>Son</td>
<td>506-999-9999</td>
</tr>
<tr>
<td>Friends</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health team</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr. Steve Anderson</td>
<td>Family physician</td>
<td>on file in pharmacy</td>
</tr>
<tr>
<td>DO NOT SHARE MY HEALTH INFORMATION WITH:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gloria Baker</td>
<td>Sister</td>
<td>lives with Estelle, but is not to be involved in care</td>
</tr>
</tbody>
</table>

Rules of Contact

<table>
<thead>
<tr>
<th>Call home #</th>
<th>Leave detailed messages</th>
<th>Leave messages with pharmacy name and tel # only</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>No do not leave messages</td>
<td>Notes</td>
<td>Lives with sister (Gloria) so does not want detailed messages left on machine. Does not have cell phone or e-mail address.</td>
</tr>
</tbody>
</table>

Additional notes:
I discussed the potential advantage of having Gloria (Estelle’s sister) included as part of her circle of care. Estelle said she’d think about it for now. We will revisit this in one month.

Pharmacist initials: LD, Duration: 7 PP
APPENDIX I: Progress Notes (guide)

Bloom Progress Notes

This form is based on Vignette 4.

Every page of every form must have the patient's number.

Use the Progress Notes form to document all Bloom-related individual patient care activities. These include meetings (in person or by phone) with the patient, family, or other healthcare providers. It is anticipated that you will add a progress note more often early and then less often later as the patient's health and medication issues have been addressed. The absolute minimum frequency of contact with the patient should be 1x/month when the health and medication issues have been addressed and more often when issues are ongoing.

Who

- Patient
- Family
- Health provider:
  - Other:

Where

- Pharmacy
  - Other:
- Other:

How

- In person
- Telephone
  - Other:

Date (Y-M-D)

- 2014-11-28

Purpose

- Navigation, resource support
- Triage
- Medication management

- Collaboration/communications with other team members
- Patient/family education

Note (suggested format: DI date, subjective, objective information; AI assessment; RI plan)

D: Patient has started taking sertraline 100 mg twice daily. He reports improved mood and energy levels compared to baseline.

O: Mentally bright, alert, and engaged in discussion.

I: No significant medical or psychological concerns identified.

A: Recommended sertraline 50 mg twice daily and planned follow-up in 1 week.

R: Patient agrees to start taking the medication as prescribed.

P: Next follow-up in 1 week

Note (suggested format: DI date, subjective, objective information; AI assessment; RI plan)

D: Patient reports feeling more focused and energetic since starting sertraline.

O: Improved concentration and mood.

I: No significant medical or psychological concerns identified.

A: Recommended continued sertraline 100 mg twice daily and planned follow-up in 2 weeks.

R: Patient agrees to continue taking the medication as prescribed.

P: Next follow-up in 2 weeks

Document how long each activity takes for program outcome measures.

May have up to 3 progress notes per page. Date each one individually.

Who

- Patient
- Family
- Health provider:
  - Other:

Where

- Pharmacy
  - Other:
- Other:

How

- In person
- Telephone
  - Other:

Date (Y-M-D)

- 2014-11-21

Purpose

- Navigation, resource support
- Triage
- Medication management

- Collaboration/communications with other team members
- Patient/family education

Note (suggested format: DI date, subjective, objective information; AI assessment; RI plan)

D: Patient reports feeling more focused and energetic since starting sertraline.

O: Improved concentration and mood.

I: No significant medical or psychological concerns identified.

A: Recommended continued sertraline 100 mg twice daily and planned follow-up in 2 weeks.

R: Patient agrees to continue taking the medication as prescribed.

P: Next follow-up in 2 weeks

Version 2014/08/25
APPENDIX J: Discharge Form (guide)
APPENDIX K: Bloom Program Logic Model (Original)

Bloom Program Logic Model | V3 2016-06-06
---|---

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APPENDIX L: Bloom Program Logic Model (modified for Outcomes Evaluation report)
Appendix M: Pharmacists’ linking the Bloom Program to other mental health and addictions programs, supports and services

The Bloom Program
connections with community services & supports

The Bloom program is offered by pharmacies that have taken steps to establish and maintain relationships with existing local and regional mental health and addictions services and support organizations.

70 pharmacists at 23 pharmacies
spent over 65 hours on outreach activities before offering Bloom
which resulted in the following connections

320 community organizations identified
dialogue with 153 community organizations

555 physician notifications
176 other professional notifications
320 pharmacy staff involved

It is an intuitive program that provides the community with an essential service that has been missing before now. In order to ensure people don’t fall through the cracks in our healthcare system, another facet can be brought to the forefront of a person’s circle of care, from an extremely trustworthy source.

nonprofit mental health organization
Appendix N: Pharmacist environmental scan of community-based organizations

Application to the Bloom Program required pharmacists to locate and demonstrate connections with mental health and addictions services in their region. This activity helped them prepare for delivery of the program’s Navigation component. These connections were documented in the application package submitted by each pharmacy.

Bloom pharmacists identified 320 community based organizations and services across the province, with each pharmacy identifying 12 local resources on average. As a group, Bloom pharmacists recorded over 65 hours spent connecting with personnel at 153 of these organizations. The average time spent per pharmacy was 2.75 hours. The data likely underestimate the true amount of time spent forging relationships as not all pharmacies recorded time commitments and ongoing collaboration beyond the application package was not collected.

The unique organizations and services identified by pharmacists are listed below. Many organizations were identified by more than one pharmacy as a contact.

- 911 Nova Scotia 211
- 250 Homes
- Aboriginal Mental Health Awareness Project
- Acute Care Psychiatric Inpatient Unit (Valley Regional Hospital)
- Addiction Services (Sydney)
- Addiction Services (Middleton and Kentville)
- Addiction Services (New Glasgow)
- Addiction Services Detox Unit (Pictou)
- Addiction Services (Port Hawkesbury)
- Addictions Services (North Sydney)
- Addictions Services (Amherst)
- Addictions Services (Halifax)
- ADDvocacy ADHD and Life Skills Coaching
- Adsum House
- Adult Mental Health Education and Treatment Groups (AVH Chipman)
- Adult Protection Services
- Alcoholics Anonymous (North Sydney)
- Alcoholics Anonymous (Amherst)
- Alcoholics Anonymous (Cheticamp)
- Alcoholics Anonymous (Bridgetown)
- Alcoholics Anonymous (Halifax)
- Alcoholics Anonymous (Sydney)
- Alcoholics Anonymous (Digby)
- Almon Medical Clinic
- Alternatives
- Alzheimers Society Nova Scotia
- Annapolis Valley Addictions Services and Opiate Replacement Program
- Annapolis Valley Crisis Line
- Annapolis Valley District Health Authority Mental Health
- Annapolis Valley Regional School Board
- Antigonish Food Bank
- Archway Place
- ARK
- Atlantic Sleep Apnea Clinic
- Autumn House
- AVD Clubhouse
- Barry House
- Bayers Road Community Mental Health
- Beacon Program
- Bedford/Sackville Mental Health Services
- Being, Doing, Becoming Clinic
- Belmont House (Dartmouth Community Mental Health)
- Bereavement Group
- Cairdeil Place
- Canadian Cancer Society Smokers Helpline
- Cape Breton District Health Authority Child and Adolescence Services
- Cape Breton District Health Authority Community Rehabilitation and Housing Coordinator
- Cape Breton District Health Authority Crisis
Line
Cape Breton District Health Authority Mental Health
Caper Base Access 808
Capital Health Addictions and Mental Health Program
Capital Health Mental Health Crisis Line
Changing Tides
Chebucto Community Health Team at the Spryfield Community Wellness Centre
Chebucto Connections: Mental Health Committee
Chebucto Round Table
Choices
Chrysalis House
Clara Hughes on behalf of Bell Let's Talk
Clinical Therapist (Inverness)
CMHA Colchester East Hants Branch
CMHA Halifax-Dartmouth Branch
CMHA Kings County Branch
CMHA Lunenburg Queens Branch
CMHA Truro Branch
CMHA Yarmouth Digby Shelburne Branch
Colchester East Hants Crisis Response Service
Colchester East Hants Health Authority Mental Health Services
Colchester East Hants Health Centre: Adult Outpatients
Colchester East Hants Health Centre: Child Adolescent and Family Services
Colchester East Hants Health Centre: Compass, Family First, Child Adolescent & Family Service, ADHD Clinic, Autism Services
Community Mental Health Dartmouth
Community Mental Health Nurse (Inverness)
Community Mental Health Team (Hants Community Hospital)
Community Response Officer RCMP
Connections Clubhouse
Connections Dartmouth
Connections Sackville
Crisis Response Services
Crossroads
Cumberland Mental Health
Dalhousie Health Services
Department of Community Services
Dial-a-Ride
Digby Hospital Addiction Services
Digby Hospital Mental Health Services
Digby Hospital Nicotine Addiction Treatment
Digby Women’s Resource Center
Direction 180
Dr. D. Martel (General Practitioner)
Drug Rehab Services
Early Autism Services (Antigonish)
Early Psychosis Program
East Hants Community Learning Association
East Hants Family Resource Centre
Eating Disorders Action Group
Eating Disorders Project
Echo Community Hub
Emergency Psychiatric Assessment
Families Matter in Mental Health
Family Matters
Family Place Resource Center
Family Resource Centres (Annapolis and Kings County)
Family SOS
Fisherman's Memorial Hospital Detox
Fisherman's Memorial Hospital Self Focus Group
Friends in Bereavement
From Recovery to Discovery
FutureWorx (Elmsdale Branch)
Guysborough Antigonish Straight Health Authority Community Mental Health
Guysborough Antigonish Straight Health Authority Community Mental Health Nurses
Guysborough Antigonish Strait Health Authority: Adult Mental Health, Child Youth and Family Mental Health, Inpatients
Haley Street
Hants Health and Wellness Team
Hants Learning Network Association
Health Promotion & Prevention
Healthy Minds Cooperative
In-patient Mental Health CBRH
Inverness Community Health Centre
IWK Health Centre
Joseph Howe Group Home
Juniper House
Kentville Mental Health Management
Kids Help Phone
Laing House
Lake City Employment Services
Leeside Transition House
Lindsay's Health Centre
Lions Club West Pubnico
Maggie's Place
Mainline Needle Exchange
Men's Health Centre (Family Services Antigonish)
Mental Health and Addictions (Valley Regional Hospital)
Mental Health Crisis Line
Mental Health First Aid
Mental Health Mobile Crisis Team
Metro Turning Point
Metro Works
Mobile Outreach Street Health (MOSH)
Mud Creek
Naomi Society
Narcotics Anonymous
Nehiley House
New Attitudes
New Glasgow Mental Health Services: Adult Out-patients, Adult In-patients, Seniors, Child and Adolescent Out-patients, Autism, Intensive Community-Based Treatment Team Services
New Glasgow Food Bank
New Hope Psycho-Social Rehabilitation Service
New Horizons for Seniors Program
New Leaf
North End Community Health Center
North End Community Health Centre: Mobile Outreach Street Health
North Nova Educational Centre Youth Centre
Northumberland Regional High School Youth Centre
Nova Scotia 811
Nova Scotia Bipolar Peer Support Alliance
Nova Scotia Certified Peer Support Specialist
Program
Nova Scotia Department of Health and Wellness: Mental Health
Nova Scotia Mental Health Outpatient Program
Open Arms
Opioid Treatment Services
Paq'tnkek Health Centre
Pathways
Peers Supporting Peers
Phoenix Centre for Youth Health Program
Phoenix House
Pictou Academy Youth Centre
Pictou County Health Authority: Tobacco Reduction Strategy
Pictou County Help Line
Pictou Food Bank
Probation Officers (Halifax Regional Police)
Project HOPE
Psychiatrist (Inverness)
pt Health and Wellness Centre
PTSD Education Board
Public Housing (Spryfield)
RCMP Digby
Recovery Group (Fisherman's Memorial Hospital Addictions Services)
Richmond County Adult Drop-in Centre
Roots for Youth
Saint Paul's Family Institute
Salvation Army & Spryfield Family Resource Centre
Salvation Army Centre of Hope
Sanford Fleming House
Schizophrenia Society of Nova Scotia: Antigonish and Cape Breton Support Groups
Schizophrenia Society of Nova Scotia: Bridgewater Support Group
Schizophrenia Society of Nova Scotia: Dartmouth Support Group
Schizophrenia Society of Nova Scotia: Halifax Support Group
Schizophrenia Society of Nova Scotia: Kings County Support Group
Schizophrenia Society of Nova Scotia: Pictou County Support Group
Schools Plus
Self Help Connection
Senior Safety Program
Seniors Services Outpatients
Sexual Health Centre (Lunenberg County)
Share Care Mental Health
SHYFT Youth Services Yarmouth
Sleepwell Nova Scotia
Social Worker (Inverness)
SOS Survivors of Suicide Support Group
South Shore Health: Mental Health and Addiction Services
South Shore Hospital Choice and Partnership Approach (CAPA) for Mental Health and Addictions
Springhill Detoxification Centre
Spryfield and District Mental Health Planning Group
St. Peter's Emergency Health Services
St. Peter's Fire Department
St. Vincent de Paul Food Bank
StFX University Health Centre
Strait Richmond Detox
Strait Richmond Hospital Detox Services
Strongest Families
Support Group for Depression
Talbot House
TEAM Work Cooperative
Tearmann House
The Navigator
The Youth Project
Transition House
Treatment Matching
Upstairs Kitchen Club
Valley Regional Hospital: Mental Health and Addictions Services
VON Caregiver Support Group
West Hants and Uniacke Community Health Board
Western Kings Memorial Health Centre
Women's Support Group (South Shore Health)
Yarmouth Addictions Services
Yarmouth Bipolar and Schizophrenia Support Group
Yarmouth District Office for Child Welfare
Yarmouth Hospital Mental Health and Addictions Services
Your Youth Health Centre at JL Ilsley
APPENDIX O: Themed responses from patient, physician and pharmacy staff surveys

PATIENTS (n=32)\textsuperscript{17}

Table 1: Themed responses re: reasons why patients would recommend the Bloom Program to others (n=32)

<table>
<thead>
<tr>
<th>Themed responses</th>
<th># of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides high quality care (general comment around being a very helpful service)</td>
<td>8</td>
</tr>
<tr>
<td>Provides well-informed education/advice around medications</td>
<td>8</td>
</tr>
<tr>
<td>Provides good supportive counseling (patient doesn’t feel like they are alone)</td>
<td>6</td>
</tr>
<tr>
<td>Provides another needed mental health and addictions service and support in the community</td>
<td>5</td>
</tr>
<tr>
<td>Helps increase access to other services and increases collaboration</td>
<td>2</td>
</tr>
<tr>
<td>Provides ongoing support</td>
<td>2</td>
</tr>
<tr>
<td>Reduces stigma and provides safe place for support</td>
<td>1</td>
</tr>
<tr>
<td>Did not help</td>
<td>1</td>
</tr>
<tr>
<td>No response</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 2: Themed responses re: patient reasons for why the Bloom Program made a difference in their life (n=32)

<table>
<thead>
<tr>
<th>Themed responses</th>
<th># of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bloom pharmacist provided helpful non-specific support/supportive counseling.</td>
<td>15</td>
</tr>
<tr>
<td>Program increased patient learning and comfort level with medications</td>
<td>5</td>
</tr>
<tr>
<td>Help navigating health system</td>
<td>4</td>
</tr>
<tr>
<td>Patient has less health issues</td>
<td>3</td>
</tr>
<tr>
<td>Patient has better relationship with pharmacist who is supportive</td>
<td>3</td>
</tr>
<tr>
<td>Patient feels better able to help themselves</td>
<td>2</td>
</tr>
</tbody>
</table>

\textsuperscript{17} # does not add up to 32 responses because some respondents gave multiple answers.
Program provides more mental health services in the community | 2
Did not help | 1
No response | 4

**Table 3:** Themed responses re: what patients liked *most* about the Bloom Program (n=32)

<table>
<thead>
<tr>
<th>Theme</th>
<th># of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-specific support/supportive counseling from Bloom pharmacist</td>
<td>17</td>
</tr>
<tr>
<td>Respect shown by the Bloom pharmacist/Being treated like a real person.</td>
<td>8</td>
</tr>
<tr>
<td>Education around medications/increased awareness</td>
<td>4</td>
</tr>
<tr>
<td>Privacy, confidentiality/safety</td>
<td>4</td>
</tr>
<tr>
<td>Positive outcome</td>
<td>3</td>
</tr>
<tr>
<td>Increased access to mental health and addictions services in the community</td>
<td>2</td>
</tr>
<tr>
<td>The whole program</td>
<td>2</td>
</tr>
<tr>
<td>No response</td>
<td>3</td>
</tr>
</tbody>
</table>

**Table 4:** Themed responses re: what patients liked *least* about the Bloom Program

<table>
<thead>
<tr>
<th>Theme</th>
<th># of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nothing that I didn’t like about the program/Not applicable</td>
<td>15</td>
</tr>
<tr>
<td>Length of program: Wish it was longer.</td>
<td>3</td>
</tr>
<tr>
<td>Not knowing what to expect</td>
<td>1</td>
</tr>
<tr>
<td>Wish it happened (visits) more often</td>
<td>1</td>
</tr>
<tr>
<td>Physician not involved</td>
<td>1</td>
</tr>
<tr>
<td>Didn’t work</td>
<td>2</td>
</tr>
<tr>
<td>No response</td>
<td>9</td>
</tr>
</tbody>
</table>
Table 5: What pharmacists liked most about the Bloom Program (n=25)

<table>
<thead>
<tr>
<th></th>
<th># of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing non-specific, one-on-one care; better interactions with patients</td>
<td>10</td>
</tr>
<tr>
<td>Improved patient outcomes</td>
<td>9</td>
</tr>
<tr>
<td>Allowed pharmacist to deliver better quality of care to people living with mental illness and/or addictions</td>
<td>8</td>
</tr>
<tr>
<td>Targets population that needs increased access to mental health services</td>
<td>5</td>
</tr>
<tr>
<td>Allowed us to help patient navigate system; increased awareness of community resources; increased network of other service providers</td>
<td>3</td>
</tr>
<tr>
<td>Training and increased awareness of providing services to people with mental health and addictions</td>
<td>3</td>
</tr>
</tbody>
</table>

18 Respondents gave multiple answers resulting in >25 answers.