macist will not see, and place it in an envelope which is then sealed. The pharmacist will conduct a critical review of all prescribed, over-the-counter, and complementary medications to identify existing and potential medication-related problems. The pharmacist will review the results with the participant. Any problems identified will be brought to the attention of the participant's general practitioner with the consent of the participant. After the interview, the pharmacist will fill out a data collection form that will be coded and analyzed.

Results: Data from the PharmaCheck tool and the Data Collection form will be coded to one of two outcomes: "yes MRP"; or "no MRP." The "yes" category will be further classified into MRPs as defined by Hepler and Strand. The following statistics will then be computed:

- sensitivity and specificity of PharmaCheck to existing MRPs;
- sensitivity and specificity of PharmaCheck to existing MRPs or potential MRPs;
- positive and negative predictive value of PharmaCheck to existing MRPs;
- positive and negative predictive value of PharmaCheck to existing MRPs or potential MRPs; and
- 95% confidence intervals around these values.

Conclusions/Implications: It is expected that the PharmaCheck tool will be shown to accurately identify patients who are experiencing or at risk of drug-related problems. It will also appropriately identify patients who need a medication review as well as those who do not. Validating this tool is the first step in establishing criteria for developing medication review guidelines, which may facilitate the development of reimbursement schemes.

Evaluation model for the IMPACT project

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IMPACT is a demonstration project involving pharmacists working with family health networks in Ontario. A logic model was developed to evaluate important aspects of the intervention and to simplify evaluation planning and communication within the project team and across stakeholders. The model ensures that the results of the project are better understood and interpreted.

Background: A program logic model (PLM) is a systematic, visual tool used to present a planned program with its underlying assumptions and theoretical framework. IMPACT (the Integrating Family Medicine and Pharmacy to Advance Primary Care Therapeutics projects) is a multi-faceted, multi-site demonstration project that involves seven pharmacists working with seven family health networks in Ontario. The objective of this project was to develop an evaluation tool that a) captures the important aspects of the intervention and its intended effects and b) facilitates effective evaluation planning and good communication within the large multi-institution project team, advisory committee, and external stakeholders.

Methods: The research team from three academic centres planned the integrated pharmacist intervention including specification of pharmacist and practice site supports before, during, and after the intervention. Research questions were generated and appropriate research methods were proposed. Three investigators drafted the initial PLM based on the intervention, research questions, and methods proposed. The PLM was discussed by the larger research team, project advisory committee, and external stakeholders to confirm the PLM components and further clarify the IMPACT program theory and implementation theory.

Results: The research team sought conceptual clarity to spell out expectations of the integrated pharmacist and family practice site members. The main PLM components identified were: transitional training and mentorship program, individual patient assessments, practice level innovations, integration, physician engagement, drug information support, economics, and oversight/buy-in from stakeholders. Three major tasks of the pharmacist were specified: patient identification and referral, assessment, and recommendations to physician and monitoring. The activities involved were translated into implementation objectives by the PLM development team, and the anticipated outputs for each activity were specified. The model indicated how the activities would lead to expected short- and long-term outcomes if the intervention was successful.

Conclusion/Implications: Logic models are useful tools for designing evaluations of programs, including evaluation of any intervention to improve medication management. The IMPACT PLM will ensure that strategies are available to measure the contribution of each program component so that a better understanding of how to interpret overall effectiveness of the program can be achieved.