This report was commissioned to support the work of the CCMHI, a 2-year project funded in 2004 by Health Canada through the Primary Health Care Transitions Fund. The purpose of the CCMHI is to improve the mental health and well-being of Canadians by improving collaboration among health and mental health care providers, consumers, families, and caregivers. The Steering Committee of the CCMHI consists of representatives from 12 national professional and consumer associations, including consumers and families, FPs, psychiatrists, nurses, social workers, psychologists, OTs, pharmacists, and dietitians. The goal of this report is to provide the Steering Committee, policy-makers, and other interested groups and individuals with a summary of the current experimental literature on the effectiveness of collaborative practices in the delivery of mental health care in the primary care setting.

Methodology
An extensive review of more than 900 articles identified 38 studies and follow-up reports that investigated the impact of collaborative mental health care with experimental methodologies, RCTs, and intervention studies with outcome measures in the primary care setting. The studies were subjected to systematic review and descriptive analysis. Based on this analysis, recent trends in collaborative mental health care research were summarized, and 11 key conclusions and best practices for collaborative mental health care were identified. Highlights of the conclusions and best practices are presented below.

Results
Changing Trends in Collaborative Mental Health Care Research
In recent years, research on collaborative mental health care has moved from purely descriptive accounts of collaborative models and enthusiastic reports of early program evaluation findings to more rigorous experimental studies. The focus of these studies has also begun to shift: earlier studies tended to be most concerned with the impact of collaboration on system outcomes such as service use, referral rates to specialty mental health clinics, and rates of inpatient admission. Recent studies have focused more on patient-level outcomes, often combining collaborative interventions with guideline-driven treatment protocols in an effort to improve care processes.

Yet another shift in the research on collaborative mental health care has seen collaboration paired with chronic disease management and quality improvement initiatives. Most of these studies have focused on depression and have entailed varying degrees of practice or service reorganization to achieve their outcomes.

A fourth “wave” of research is now examining the ability of such research-based programs to be translated into “real-world” settings.

Increasingly, the literature is reporting collaborative interventions targeted at specific patient populations (for example, serious and persistent mental illness, depression, the elderly with depression, substance abusers, and high users of medical care), involving professionals with different skill sets, different resource requirements, and a range of implementation methods. Populations noticeably absent from the experimental literature include Aboriginal communities, the homeless, and rural communities. Diagnostic groups that are underrepresented include anxiety disorders, personality disorders, eating disorders, attention-deficit disorder, and dementia. While FPs, psychiatrists, and nurses feature in many reports, collaborative studies involving consumers, psychologists, social workers, OTs, pharmacists, and other providers are now beginning to emerge.

What is Collaborative Care?
Collaborative care involves providers from different specialties, disciplines, or sectors working together to offer complementary services and mutual support, to ensure that individuals receive the most appropriate service from the most appropriate provider in the most suitable location, as quickly as necessary, and with minimal obstacles. Collaboration can involve better communication, closer personal contacts, sharing of clinical care, joint educational programs, and (or) joint program and system planning.
Most of the studies reviewed were multifaceted and multidisciplinary. The intent in each case was to provide a sufficiently powerful intervention that a difference from usual care could be detected. The drawback of this approach is that the more complex the protocol, the more difficult it is to predict which elements might have been responsible for any improvement in care and clinical outcome. Another drawback of the more complex studies is that their generalizability is likely to be limited. A number of the multifaceted studies would be difficult, if not impossible, to implement in the average primary care practice, either because of the resources necessary to support them or because of the rigidity of the research protocol. There is an urgent need to tease out of the literature those interventions that are most effective and most cost-effective.

Conclusions and Better Practices

A number of messages are beginning to emerge from the experimental literature:

1. Collaborative relationships between PCPs and other mental health care providers do not happen instantly or without work. They require preparation, time, and supportive structures.

Two of the studies reviewed (13,31) had potentially good interventions that failed because of poorly implemented collaboration. In contrast, a study built on preexisting relationships in the primary care practice resulted in high levels of collaboration and good patient outcomes (16). Ideally, collaborative care arrangements will grow out of preexisting clinical relationships.

System-level collaboration also requires preparation, service reorganization, and time to develop. It is likely that real change, sustained over long periods, needs to be gradual and introduced in a step-wise fashion. The degree of staff “buy in,” institutional leadership, formal policy change, and performance monitoring are also key factors that will determine success or failure when agencies and organizations seek to improve their level of collaboration with primary care providers (44–46).

2. Colocation is important for both providers and patients.

Providers who have not met face-to-face and (or) who do not have preexisting clinical relationships are less likely to engage in a collaborative care relationship (16,48). From the patient’s point of view, offering specialty mental health care within the primary care setting appears to produce greater engagement of patients in mental health care, a *sine qua non* for better patient outcomes (24,47). Collaboration between mental health specialists and primary care providers is likely to be most developed when clinicians are colocated and most effective when the location is familiar and nonstigmatizing for patients. This may be particularly true for patients with substance abuse problems. An emerging literature on colocation and (or) integration of substance abuse treatment and primary care suggests that patients in integrated models do significantly better, and those with poorer health benefit the most (26,52,53).

3. Degree of collaboration does not in itself appear to predict clinical outcome.

Although there was a trend toward positive outcomes occurring more often in studies with moderate or high levels of collaboration, some studies with lower levels of collaboration also had positive outcomes (6,9,12,22,37).

4. The pairing of collaboration with treatment guidelines appears to offer important benefits over either intervention alone in patients with depressive disorders.

The overwhelming majority of studies with positive outcomes in this patient population included decision support instruments, usually in the form of a research protocol, and (or) established clinical treatment guidelines. A few studies with poor or mixed outcomes also used protocols or guidelines, but in some cases, these were poorly implemented (13,31). Notably, previous trials of clinical guidelines, treatment protocols, or algorithms without collaborative interventions have not shown improvements in patient-level outcomes (54–56).

5. Collaboration paired with treatment guidelines for depression may have a differential effect on outcome, with patients with more severe disorder responding better.

Several of the studies reviewed showed improved outcomes only in subgroups of patients with higher depression severity scores (7,9,13,14). At present, there is more evidence to support targeting collaborative interventions at major depressive disorders.

6. One of the most powerful predictors of positive clinical outcomes in studies of collaborative care for depression was the inclusion of systematic follow-up as part of the study protocol.

In the studies reviewed, follow-up was delegated to another clinician or care manager, with varying degrees of collaboration with the PCP and for varying lengths of time. The studies that included systematic follow-up and a mechanism for treatment to be altered when patients were not responding well (often a stepped approach) had positive outcomes (6,7,9,11,12,16,18,22,33,35,37,39,41,47). A few studies (5,8,13,31) included follow-up and had poor outcomes, but in the latter 2 studies, the investigators were unable to implement the interventions adequately. Some studies (17,22) showed increasing clinical benefits over time. This finding speaks to the need for practice reorganization to support primary care providers in providing adequate, systematic follow-up consistent with treatment guidelines.
7. Efforts to increase medication adherence through collaboration with other health care professionals (for example, practice nurses) were also a common component of many successful studies. Although improving medication adherence has strong face validity, analysis of these studies found no clear direct relation between medication adherence and clinical outcome (10,11,14,15,19,21). One group of investigators speculated that increased emotional support during adherence monitoring by nurses may be responsible for the positive findings in their study, despite lack of improved medication adherence. Until this issue is clarified, collaborative interventions to provide patient follow-up should focus on more than just medication adherence.

8. Collaboration alone has not been shown to produce skill transfer or enduring changes in PCP knowledge or behaviours in the treatment of depression. Only one experimental study (5) demonstrated a trend toward behavioural change in the PCP over time (increased prescribing for depression). Another study (4) demonstrated that the improvement in outcomes achieved during a multifaceted intervention for depression (5) were not due to physician education alone, but required extensive service restructuring in addition. This conclusion is strongly supported by a large body of evidence about CME for physicians in general (57) and by a study (33), which focused on the seriously mentally ill. It made changes in service structure that had a lasting positive effect on the process of care. Collaborative interventions designed to produce changes in the practice patterns of primary care providers should include service restructuring specifically designed to support those changes.

9. Enhanced patient education about mental disorders and their treatment (usually by a health professional other than the PCP) was a component of many of the studies with good outcomes. Further work is needed to determine what, if any, contribution this intervention makes to the success of collaborative care. One study (37), which focused on nurse-guided self-help and patient education, suggests that some patients may do very well with alternatives to traditional assessment and management approaches as part of a stepped-care approach and that these can be provided in a collaborative manner in the primary care setting.

10. Collaborative interventions established as part of a research protocol may be difficult to sustain once the funding for the study is terminated (4,16). In contrast, one group of investigators (33) found that improvements in care established as part of an ongoing collaborative intervention involving permanent staff were sustained 2 years after the study ended. This highlights the importance of 1) sufficient funding to support collaborative care processes and practices and 2) the potentially disruptive effects of study interventions that are “parachuted” into clinical practice.

11. Patient choice about treatment modality may be an important factor in treatment engagement in collaborative care. Research has shown that, given a choice, 26% to 66% of primary care patients with major depression would prefer to be treated with psychotherapy rather than medication (57), and this preference may apply to other mental health disorders as well. In the current review, 2 groups of investigators (16,22) gave patients a choice between medication and protocol-based psychotherapy, and a third group (39) provided psychotherapy as one of the randomized options in their study. The popularity of psychotherapy was confirmed (16,22), and sustained mental health-related QoL benefits were found for psychotherapy that did not occur with medication (41). Collaborative interventions should take patient preferences into account and be prepared to provide the option of psychotherapy whenever possible.