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### **Ontario MedsCheck Annual pharmacy medication review service: a comparison between initial and well established implementation periods**

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**Background:** A MedsCheck Annual (MCA) consultation is a government-funded, medication review service in Ontario, Canada, for people taking 3 or more prescription medications for chronic conditions.

**Objectives:** To describe and compare the demographic and clinical characteristics of MCA recipients overall and in 2 time periods.

**Methods:** This cohort study leveraged linked administrative claims data from April 1, 2007 to March 31, 2013. Two time periods were considered: 1) April 1, 2007 to March 31, 2008, the first year of MCA service; and 2) April 1, 2012 to March 31, 2013, the most recent year with complete data available. Ontario Drug Benefit (ODB) patients were eligible for MCAs since April 1, 2007 and on July 17, 2007 MCA eligibility was extended to Ontarians taking 3 or more prescription medications for chronic conditions. Descriptive statistics of MCA recipients were calculated overall and over the 2 time periods, and stratified by age.

**Results:** The MCA service was provided to 1,498,440 Ontarians (55% seniors, 55% female), and 36% of recipients had 2 or more MCAs overall. Service provision increased over time with a sharper increase after 2010. From 2007-08, MCA was provided to 194,726 Ontarians (67% over age 65) and in 2012-13, 372,054 Ontarians (44% over age 65). In 2007-08, more recipients lived in urban centres (91%) versus 2012-13 (86%). The proportion of ODB recipients with high medication costs in the prior year decreased from 14% in 2007-08 to 4% in 2012-13. Diagnoses of hypertension (76% in 2007-08 and 60% in 2012-13), COPD or asthma (34% in 2007-08 and 29% in 2012-13), and diabetes (40% in 2007-08 and 22% in 2012-13) were most common. In 2007-08 versus 2012-13, more Ontarians were taking antihypertensives, diuretics and narcotics prior to receiving MCA.

**Conclusions:** MCA provision increased over the first 5 years of the program; however the number of persons receiving multiple MCAs is low. Initial recipients had a higher prevalence of disease, and greater medication use and costs compared to later recipients. MCAs were more frequently provided to Ontarians with a high burden of comorbid illness during initial years of service.