

Antipsychotic Drug Utilization in British Columbia from 1997 to 2006

Objective

To examine the rates of antipsychotic drug use in British Columbia among individuals aged 20 and above.

Data

Anonymized prescription data extracted from the province's centralized database system (BC PharmaNet) containing all prescription drugs filled outside hospitals in British Columbia.

Definitions

Antipsychotic drugs - prescription drugs used to treat the clinical symptoms of schizophrenic, schizoaffective and bipolar disorders. They are also used off-label to treat other conditions (i.e. behavioural and psychological symptoms of dementia, vomiting and nausea). Known *adverse effects* of antipsychotics include sedation, movement disorders, heart problems, weight gain and diabetes. Recently, atypical antipsychotics were reported to increase risk for metabolic and cerebrovascular adverse events.

One-year prevalence - the total number of individuals who filled at least one prescription for an antipsychotic drug in a given year divided by population estimates obtained from BC Stats.

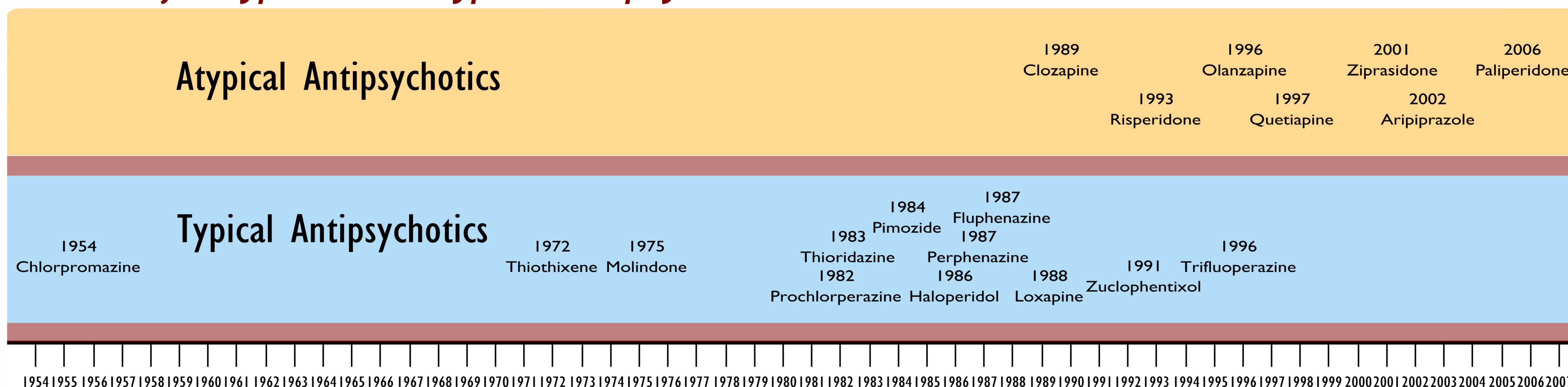
Key Findings

- Antipsychotic drug use increased from 13.5 per thousand in 1997-98 to 25 per thousand in 2005-06, an 85% increase.
- The increase in rates is driven by the higher use of atypical antipsychotics.
- Remarkably higher rates of use are found among older age groups, particularly those who are 75 and above.
- Women tend to have disproportionately higher rates of use.
- The rate of increase in the use of atypical antipsychotics among older patients appeared to have slowed down in 2003-04.

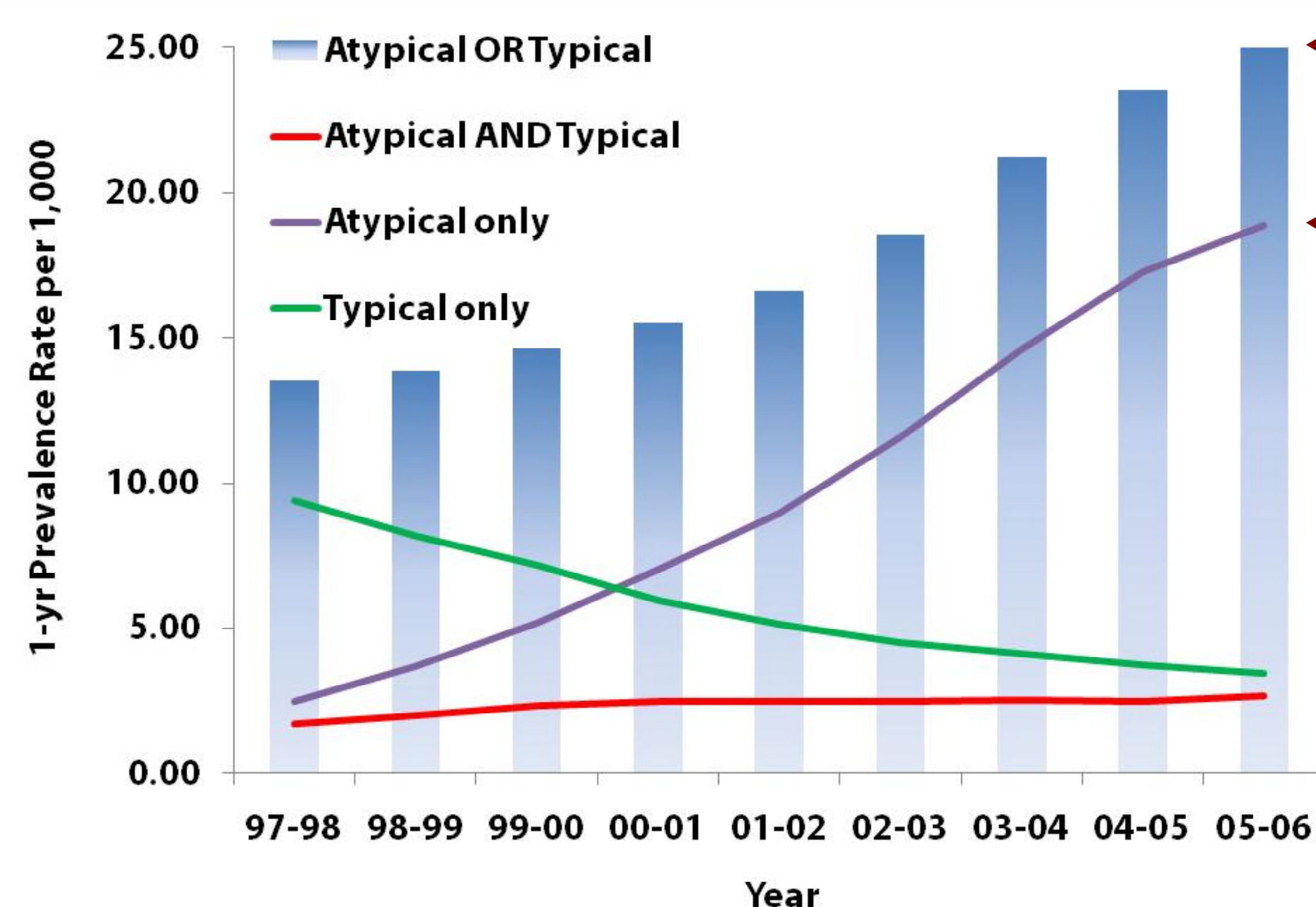
Acknowledgments

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Timeline for Typical and Atypical Antipsychotics



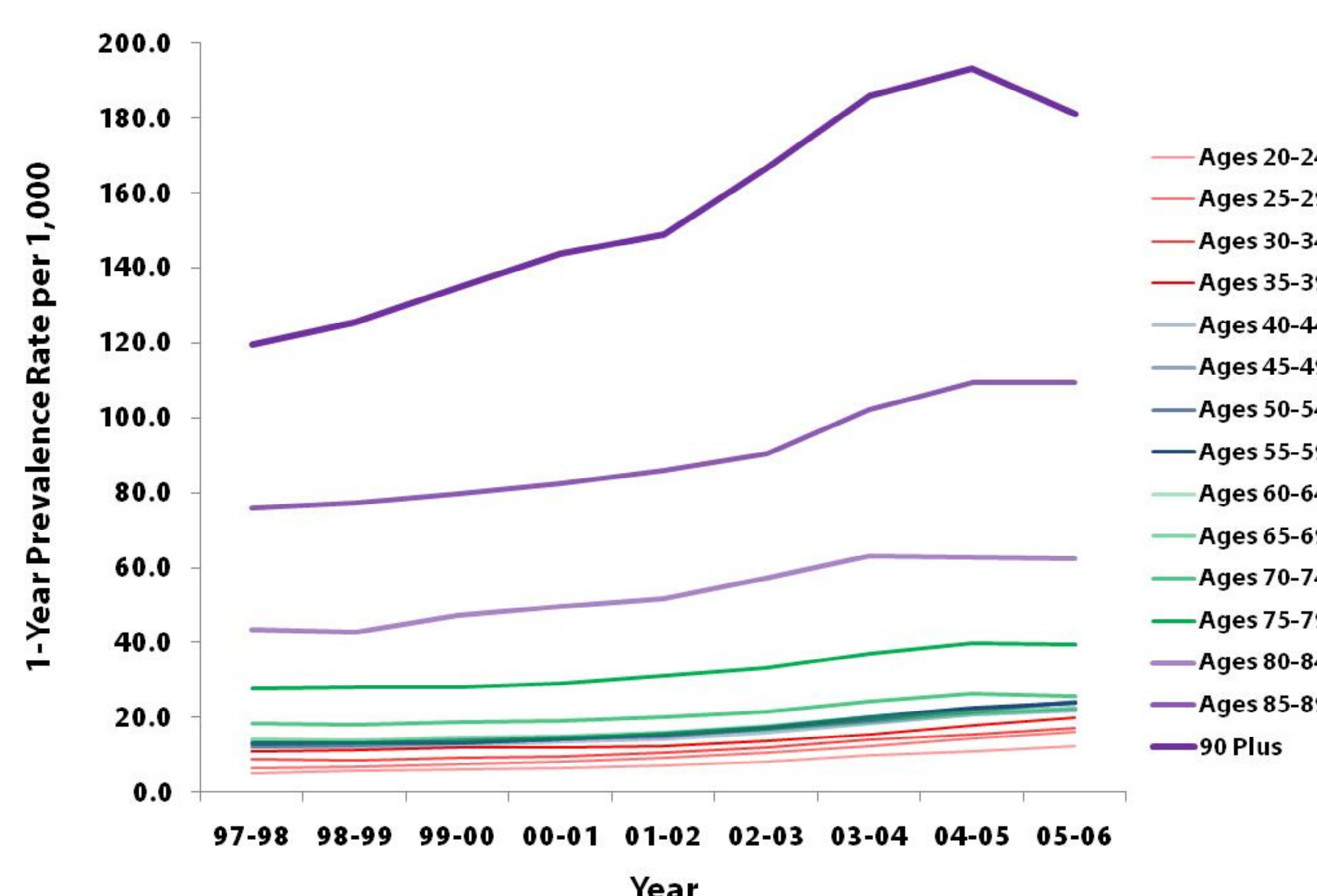
Antipsychotic drug use in BC (1997-2006)



Antipsychotic drug use increased by 85%

Increasing trend is driven by higher use of atypical antipsychotics

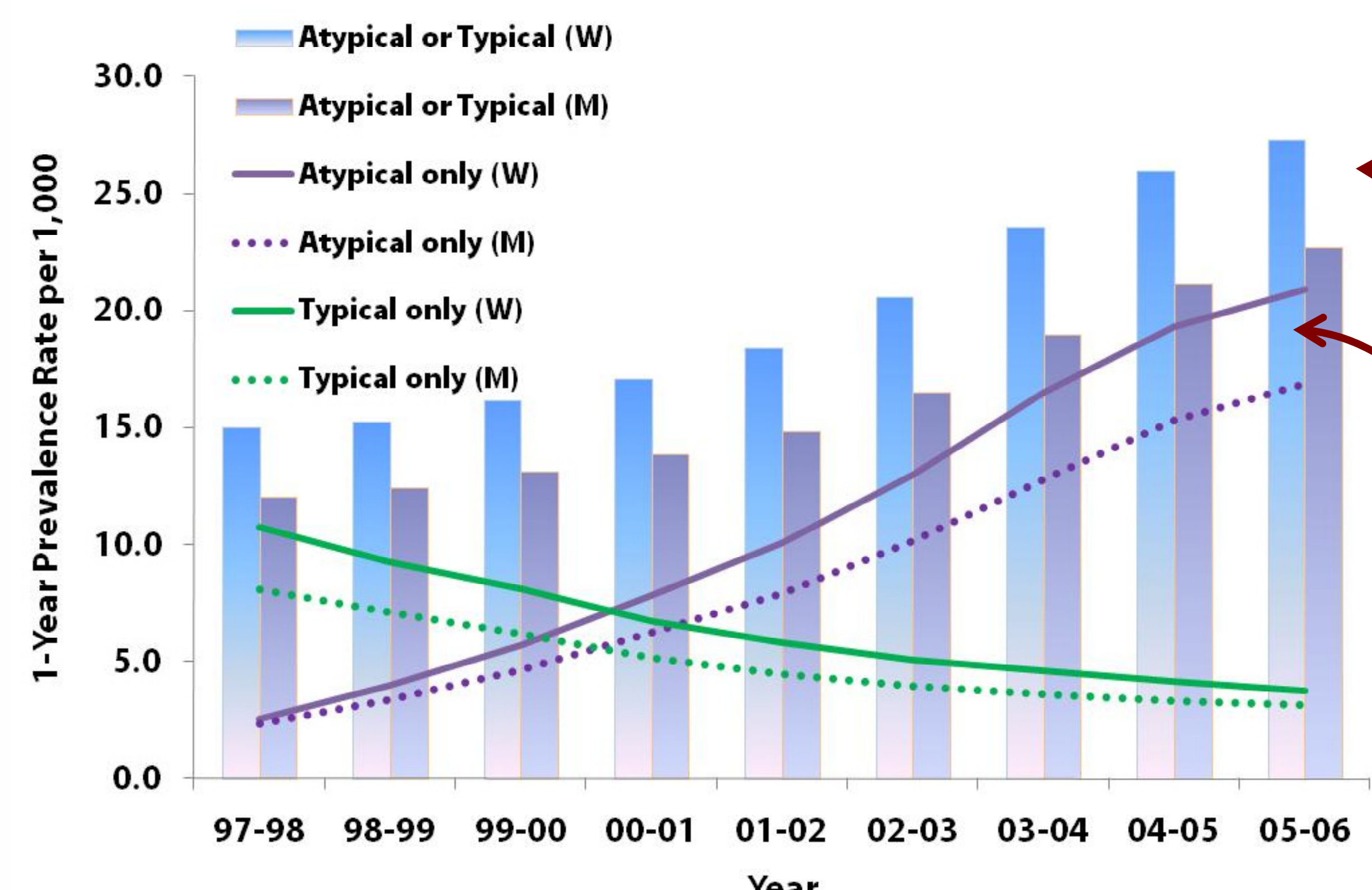
Antipsychotic drug use by age (1997-2006)



Older age groups (purple bands) have remarkably higher rates of antipsychotic drug use

The trend may have started to change in 2004

Antipsychotic drug use by sex (1997-2006)



Women have higher rates of antipsychotic drug use

The difference in the rate of antipsychotic drug use between men and women is increasing

Implications

- Lower prevalence of schizophrenic and bipolar disorders as well as higher prevalence of dementia among the elderly suggest that the increase in the use of atypical antipsychotics is caused largely by off-label use of antipsychotic drugs in this age group.
- In light of recent studies showing that the use of atypical antipsychotics for managing dementia-related symptoms provide modest benefits only and that the risks (i.e. cerebrovascular adverse events, mortality, upper respiratory infections) may offset health benefits^{1,2}, it is important that care providers, patients and family members carefully weigh the risks and benefits of using atypical antipsychotics on elderly patients with dementia.
- Over the past few years, the use of atypical antipsychotics among the elderly appears to be decreasing. Health warnings issued by drug companies and Health Canada between the years of 2002 and 2005³ may have facilitated this change in the trend.

References

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3. Valiyeva, E., Herrmann, N., Rochon, P. A., Gill, S. S., & Anderson, G. M. (2008). Effect of regulatory warnings on antipsychotic prescription rates among elderly patients with dementia: a population-based time-series analysis. *Canadian Medical Association Journal*, 179(5), 438-446.

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