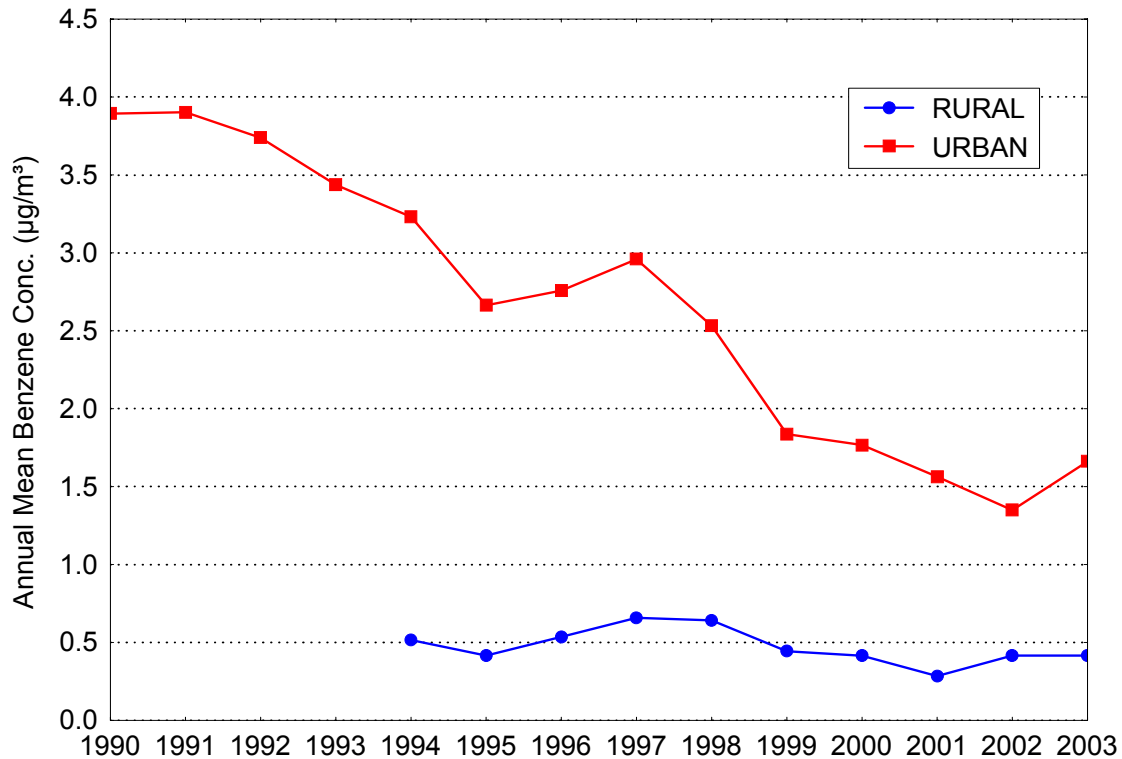


Ambient Air Benzene – 2003 Update

Through the National Air Pollution Surveillance (NAPS) network, data are collected on ambient air levels of a variety of toxics at rural, suburban, city-centre and industrial sites. This effort is carried out in cooperation with provincial and municipal environmental agencies. The program incorporates measurement of a large number of volatile organic compounds (VOC) including benzene. In 2003 there were 52 active sites where benzene measurements were taken. Fourteen sites were in rural locations and the other 38 sites were located in 18 different cities across Canada. For the urban sites the annual means ranged from 0.6 to 5.5 $\mu\text{g}/\text{m}^3$ with 33 of the 38 sites recording annual mean concentrations less than 2.0 $\mu\text{g}/\text{m}^3$.

The NAPS benzene monitoring program began in 1989. For the period 1990 to 2003 there were 18 urban sites in 12 cities that had complete annual data records (valid annual mean in at least 10 of the 14 years). The composite annual mean for that group of sites is shown below. Also shown on the graph are results for a group of rural sites that had complete (7 out of 10 years) data for 1994 to 2003.



Urban benzene concentrations decreased by 65% between 1990 and 2002 with a small increase from 2002 to 2003. This was the first year-to-year increase since 1997. The reason for the increase is not obvious but 30 out of the 38 urban sites recorded an increase from 2002 to 2003. Rural benzene concentrations changed very little over the time period.