# Chronic Lower Respiratory Disease

Chronic lower respiratory diseases (CLRD) are a diverse group of disorders with most involving impairment of lung function. These diseases account for about 5% of all deaths nationally[149] and in 2004, CLRD was the 4th leading cause of death in the United States.[150] The primary consequence of CLRD that contributes to illness is breathlessness. Depending on the severity, breathlessness may result in restrictions ranging from inability to climb stairs to constant breathlessness and difficulty in sleeping. Impaired lung function probably contributes to more frequent, severe, and prolonged viral and bacterial respiratory infections. Conditions such as chronic obstructive pulmonary disease (COPD) are largely irreversible and progressive and occur among older individuals who often have multiple chronic diseases that contribute to the overall disability. After an average of 7.5 years, most COPD patients are no longer capable of productive work. Often, COPD patients receive medical care that is not appropriate for their condition.[151]

The Yr 2010 objective for CLRD deaths is 60 per 100,000 population. Kansas City has been below this level for several years, with the 2004 age-adjusted death rate being 41.2 (Figure 66), slightly below the national death rate of 41.8 that year. Between 1995-1999 and 2000-2004, the age adjusted death rates due to CLRD decreased for whites and blacks, 12.5% and 16.7%, respectively (Figure 67). Despite these decreases, whites were 40% more likely than blacks to die of CLRD. However, for 2000-2004, the death rates for white males and black males were quite similar, 55.1 and 53.6, respectively. Among females, the death rate for whites was 86% higher than for blacks, 45.4 and 24.4, respectively. Whites and blacks accounted for 99% of CLRD deaths over the 5 y period. Of 918 CLRD deaths recorded, 6 were attributed to bronchitis, 89 to emphysema, 40 to asthma, and 783 to other lower respiratory tract diseases.

Exposure to ozone and particulate matter with an aerodynamic diameter of $\leq$10 µm ($PM_{10}$) is

[149] Centers for Disease Control and Prevention. 2004. The burden of chronic diseases and their risk factors. National and state perspectives. 185 p. www.cdc.gov/nccdphp.

[150] Minino AM et al. 2006. Deaths: preliminary data for 2004. 8 p. www.cdc.gov/nchs.

[151] Lindenauer PK et al. 2006. Quality of care for patients hospitalized for acute exacerbations of chronic obstructive pulmonary disease. *Ann Intern Med* 144:894-903.

**Figure 66 Age-adjusted death rates per 100,000 population due to chronic lower respiratory disease, Kansas City, MO**

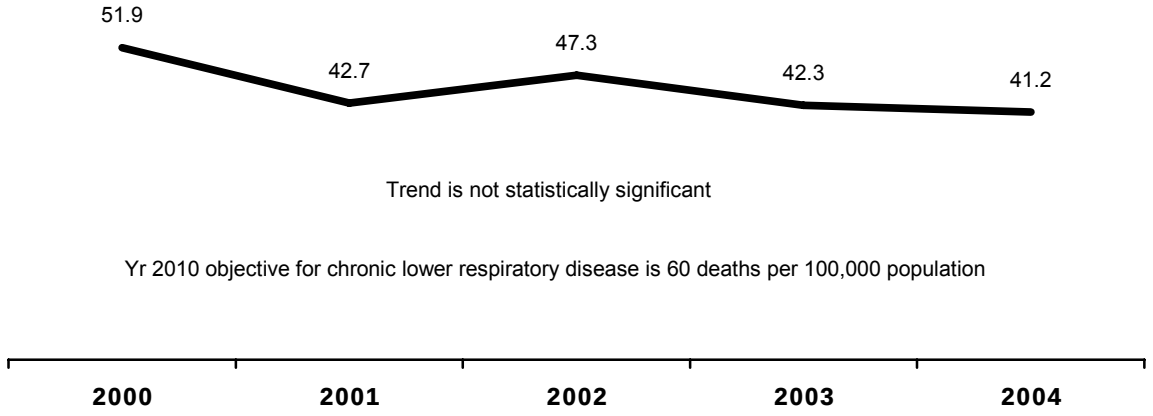
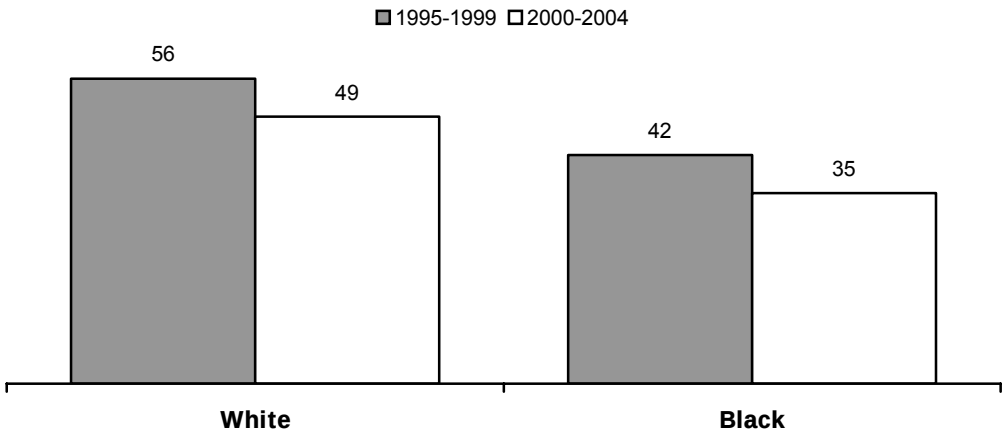



**Figure 67 Age-adjusted death rates per 100,000 population due to chronic lower respiratory disease, Kansas City, MO**



associated with respiratory hospital admissions including CLRD.[152] In Kansas City in 2003, CLRD was responsible for 1,930 visits to emergency departments and 1,094 hospitalizations.

[152] Medina-Ramon M et al. 2006. The effect of ozone and $PM_{10}$ on hospital admissions for pneumonia and chronic obstructive pulmonary disease: a national multicity study. *Am J Epidemiol* 163:579-588.