

## Premature Mortality Rate (PMR)

Definition: Premature mortality is defined as deaths occurring before age 75. The premature mortality rate (PMR) is the number of deaths/100,000 persons, age-adjusted to the 2000 US Standard population.

Background: The PMR is considered an excellent, single measure that reflects the health status of a population, and the need for systematic public health approaches to health promotion and disease prevention. PMR analyses make clear that community health status is related to many factors. Health care is certainly one of these factors, but not the only factor. As our analyses make clear, the PMR may be related to socioeconomic status and its correlates: potential issues such as environmental conditions, housing, education, stress, higher rates of smoking, substance abuse, violence, obesity, and lack of access to care. However, there are other possible reasons for high PMRs: specific subpopulations of younger persons at risk such as HIV/AIDS in Provincetown; increased motor vehicle deaths in rural areas; heart attack deaths in persons 45-64 in suburbia, etc.). The PMR has limitations: 1) it does not identify specific reasons why it some areas may be high or low; 2) summary measures may sometimes obscure important subgroup differences; and 3) mortality might not be a good measure of important public health issues (e.g. arthritis, poor housing, etc.)

Ultimately, the PMR is a useful planning tool to begin discussions that allow policy makers, community advocates, public health professionals, and cities and towns to consider more effective and cost efficient approaches to improving the quality of life and health of the public. Furthermore, the PMR is helpful because it moves us away from considering only individual diseases, and directs us towards considering the overall health of our communities.

For further information on the PMR, please see the following two publications: Eyles J, Birch S. A population needs-based approach to health care resource allocation and planning in Ontario: A link between policy goals and practice. *Can J Public Health* 1993; 84(2): 112-117 and Carstairs V., Morris R. *Deprivation and Health in Scotland*. Aberdeen Scotland: Aberdeen University Press, 1991.

Documentation: These data are based on Massachusetts Deaths 2005 and 2006

This file is divided up into 3 pages:

- 1) PMR rates for Massachusetts communities in 2005 in alphabetically order;
- 2) PMR rates for Massachusetts communities in 2006 in alphabetically order;
- 3) PMR rates for Massachusetts communities in 2005 and 2006 in alphabetically order;
- 4) the same spreadsheet but displayed from lowest rate to highest rate in 2006;
- 3) the 30 largest communities with an indication of statistically significant PMR in 2006 compared to the state overall

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### **NOTE:**

In 2006, for city and town rates, we have used population estimates for 2005, which are the most up-to-date population estimates available by age, race, and sex at the sub-county level. If the population in your community increased from 2005 to 2006, the rates listed may overestimate the actual rate. If the population in your community declined from 2005 to 2006, the rates given in the publication may underestimate the actual rate. As soon as new population data are available, revised rates will be posted on MassCHIP, the Department's online database (<http://masschip.state.ma.us>).