



# Respiratory Mortality: A Review

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## Background

It is estimated that 17 million people in the United States have asthma. The prevalence of asthma (all age groups) is 6.62 per 100 persons, but is higher in those under 18 (8.12/100 persons) and those with an income less than \$16,000 (6.6/100 persons).

Asthma is a complex, heterogeneous disease in which response to treatment varies widely. Numerous factors including viral infections, allergen and irritant exposure, exercise are among the factors that can complicate the short- and long-term management of asthma.

Quality intensive research and adherence to evidence-based practice are all vital to asthma research, relatively high. There is little information available that links risk factors to high-risk populations and mortality data.

- This review of published literature focuses on three key areas:
- 1) Examination of current trends in rates of asthma-related deaths
  - 2) Identification of mortality predictors or risk factors
  - 3) Review of potential effective prevention measures

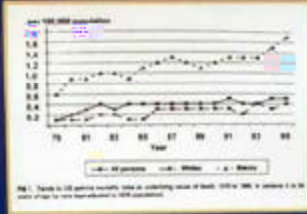


Fig. 1. Trends in age-standardized rates of death from asthma in the US, 1970-2000. In persons < 18, rates are age-standardized to the 1970 population.

In Memory of Matthew Wayne Banocki  
Who died on August 25, 2000 following  
an acute asthma attack



April 7, 1981 - August 25, 2000

## Conclusion

- In conclusion -
- Asthma mortality rates have increased worldwide.
  - Although rates differ markedly by region and ethnicity, diverse characteristics that place patients at risk are not well understood.
  - Predictors and potential actions are key to the prevention of asthma-related death.
  - Further research is needed to assess what is known.
  - Specific disease characteristics that place asthma patients at risk for asthma-related death.
  - Patients need appropriate adherence to asthma management guidelines.
  - Emergency situation asthma protocol.

## Review

In the United States, especially rates from asthma have increased in the past few years from 1.3 to 1.4 per 100,000 persons. (See Figure 1.)

Recent asthma mortality trends indicate a widening of the racial gap. Rates of death from asthma have been much higher for white females than white males with an increasing disparity.

While the US regional variations also exist in asthma prevalence, mortality and morbidity rates. Case-fatality rates are highest for black men in inner cities.

The "high risk" profile for asthma-related deaths includes the subsequent pharmacotherapy of corticosteroids, beta-2 agonists, ipratropium bromide, and the severity of the final episode of asthma. Other British patients using asthma-related deaths found that some extent of care or supervision was deficient in 90% of the deaths reviewed. The problems ranged from failure to diagnose asthma (10%) to poor understanding (7%). Patients had not used appropriate (7%) of the time. Other management failures were asthma-related deaths found very similar asthma.

Many believe that asthma-related deaths occur suddenly or have an air attack, suggesting that some of the symptoms were recognized, the death would not have been preventable. In fact, the final episode was only 60% of the deaths lasted at least 12 hours, allowing enough time for treatment. Slightly less than half of all deaths occur in the hospital.

Some asthma episodes can be completely managed, asthma-related deaths in hospital may be due to the way many studies have their patients in intensive care units of patients with asthma in both treatment and support settings, especially in patients who died. Using clinical judgment, practitioners often underestimate the needed pharmacologic treatment.

The use of appropriate medication is largely dependent on the ability of caregivers and patients to recognize warning signs. And, unfortunately, signs are reported in any patient with acute asthma.

The patient must be informed about the illness and have a written plan for emergency treatment. The communication between the patient and caregiver during periods of deteriorating asthma should be established in emergency situations. There is need for a protocol to be established and implemented that encompasses effective drug and acute management of the patient's program.

Clinical practitioners would be aware to include four objective monitoring of the severity of deterioration and potential deterioration in gas exchange.

Early recognition of asthma that has been treated and a patient is not improved by the currently used and used an increasing. Every effort should be made to prevent any asthma. Long-term management of asthma with potential changes in symptoms.

Practitioners responding to primary care asthma patients should be aware of the need for information for further management.