MM-742

SOHO 2026 Annual Meeting

Premature Mortality in Early-Onset Multiple Myeloma in the United States, 1999-2024: Trends, Disparities, and Disproportionate Years of Potential Life Lost

Ayse Gul Korkmaz1, Jahnavi Chaudhari1, Adit Dharia1, Dharmik Patel2, Muddassir Salman1
1. USF Morsani School of Medicine, HCA Florida Oak Hill Hospital, Brooksville, FL, USA
2. HCA Florida Healthcare/Westside/Northwest Hospital, Plantation, FL, USA
Presenting author: Ayse Gul Korkmaz

BACKGROUND & METHODS

Background

Deaths before age 55 represent premature MM mortality during working, caregiving, and potentially transplant-eligible years.

Aim

Define the national burden of early-onset MM mortality, its contribution to YPLL, and variation across demographic and geographic groups.

Methods

CDC WONDER mortality data, 1999-2024; MM as underlying cause of death (ICD-10 C90.0). Early-onset MM mortality was defined as death at ages 25-54 years.

Outcomes

Deaths, crude mortality rates, annual percent change, YPLL-75, mean YPLL per death, and modern-period disparities by race, sex, and region.

STUDY POPULATION

25-54 y	1999-2024
Early-onset age group	Study period
17,986	**MM**
Early-onset deaths	Cause of death: underlying cause

Sensitivity analysis used multiple-cause-of-death records with MM listed anywhere on the death certificate.

NATIONAL TRENDS, 1999-2024

0.6624 to 0.2915	~2.7%	464,615
Crude mortality rate per 100,000	Annual decline log-linear APC	Total YPLL-75 1999-2024

Early-onset MM mortality decreased substantially over the 26-year study period.

Mortality rate change

Crude early-onset MM mortality declined from 0.6624 per 100,000 in 1999 to 0.2915 per 100,000 in 2024.

Multiple-cause-of-death sensitivity analysis confirmed a similar decline in MM-associated early-onset mortality.

DISPROPORTIONATE LIFE-YEARS LOST

25.8 y	6.1%	31.4%
Mean YPLL per death	All MM deaths ages 25-54	Total MM YPLL-75 from ages 25-54

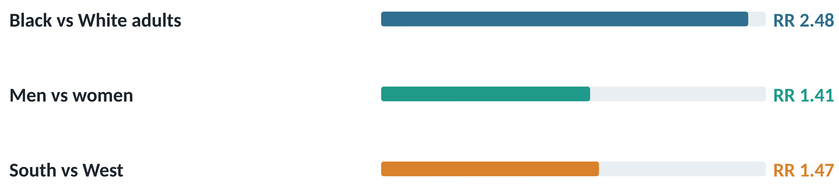
Adults aged 25-54 years represented a small fraction of MM deaths, but contributed nearly one-third of MM-related YPLL-75.

This corresponds to an approximately 5-fold disproportionate premature mortality burden.

MODERN-PERIOD DISPARITIES, 2018-2024

Early-onset MM mortality rates were higher in several demographic and geographic groups.

Rate ratios



Persistent racial, sex-based, and regional disparities remained evident in the modern period.

Disparities were assessed using 2018-2024 single-race mortality data.

CONCLUSIONS

Early-onset MM mortality has declined substantially in the United States.

However, deaths among adults aged 25-54 years contribute disproportionately to MM-related life-years lost.

Persistent racial, sex-based, and regional disparities underscore the need for earlier recognition, timely referral, and equitable access to specialized MM care.

These findings highlight premature mortality as a distinct survivorship and equity burden in MM.

Abbreviations: APC, annual percent change; CDC WONDER, Centers for Disease Control and Prevention Wide-Ranging Online Data for Epidemiologic Research; ICD-10, International Classification of Diseases, Tenth Revision; MM, multiple myeloma; RR, rate ratio; YPLL, years of potential life lost; YPLL-75, years of potential life lost before age 75 years.

Contact: Ayse Gul Korkmaz | Poster MM-742 | SOHO 2026

Data source: CDC WONDER mortality data, 1999-2024.