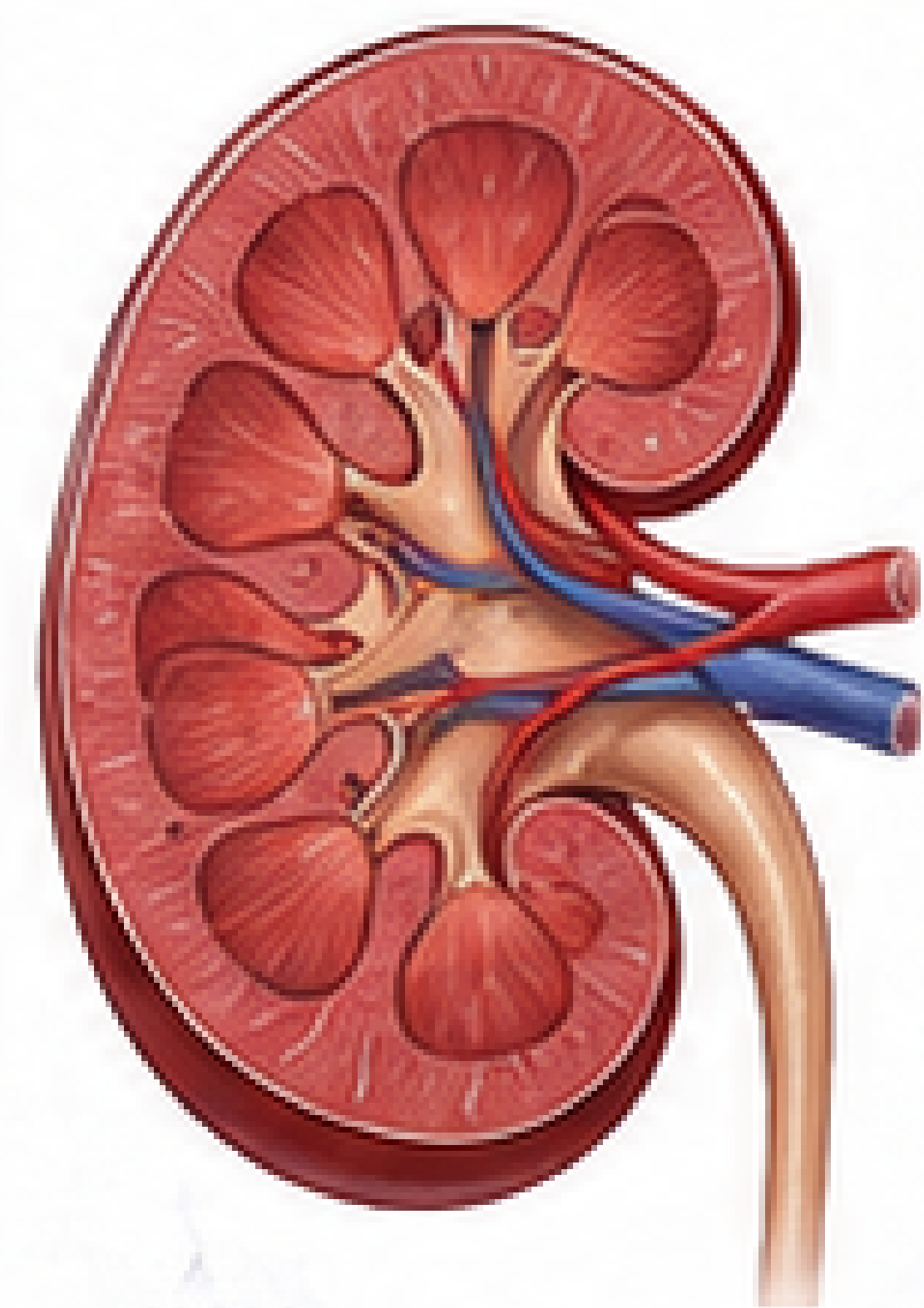




Trends in Mortality Associated with Multiple Myeloma and Renal Failure Among Adults Aged ≥25 Years in the United States, 1999-2025: A CDC WONDER Analysis

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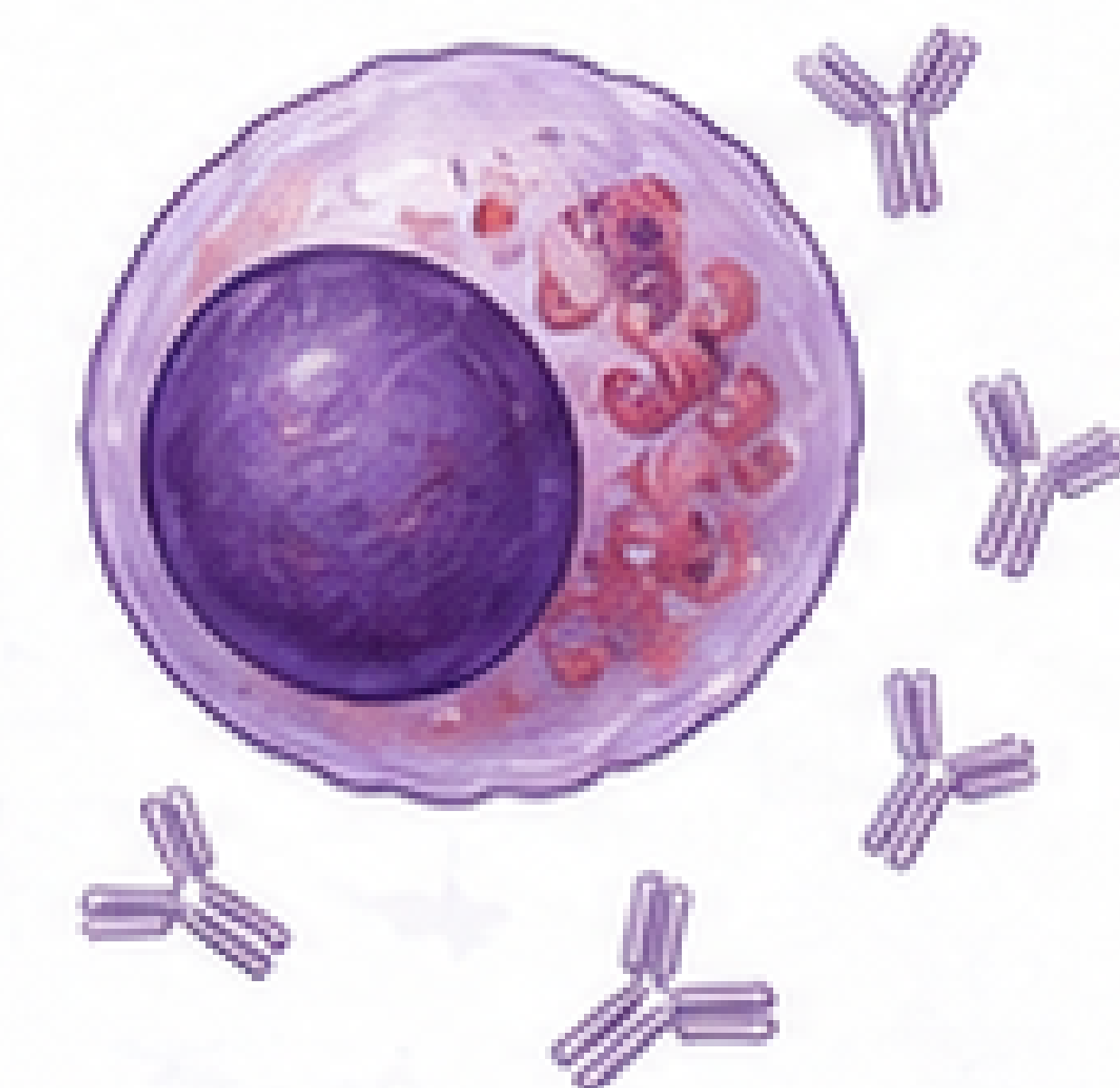
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INTRODUCTION / BACKGROUND



Multiple myeloma frequently causes renal failure due to cast nephropathy and hypercalcemia. Contemporary national trends in renal failure-related mortality among U.S. adults with myeloma remain poorly defined.

OBJECTIVE



To investigate mortality trends and demographic, geographic, and urban-rural disparities for multiple myeloma complicated by renal failure from 1999 to 2025.

METHODS



- Data Source: CDC WONDER
- Population: Adults aged ≥25 years
- Study Period: 1999–2025
- **Conditions:** Multiple myeloma (ICD-10: C90) with renal failure (ICD-10: N17–N19)
- **Outcome:** Age-adjusted mortality rate (AAMR)
- **Analysis:** Joinpoint regression to estimate Annual Percent Change (APC) and Average Annual Percent Change (AAPC) with 95% CI



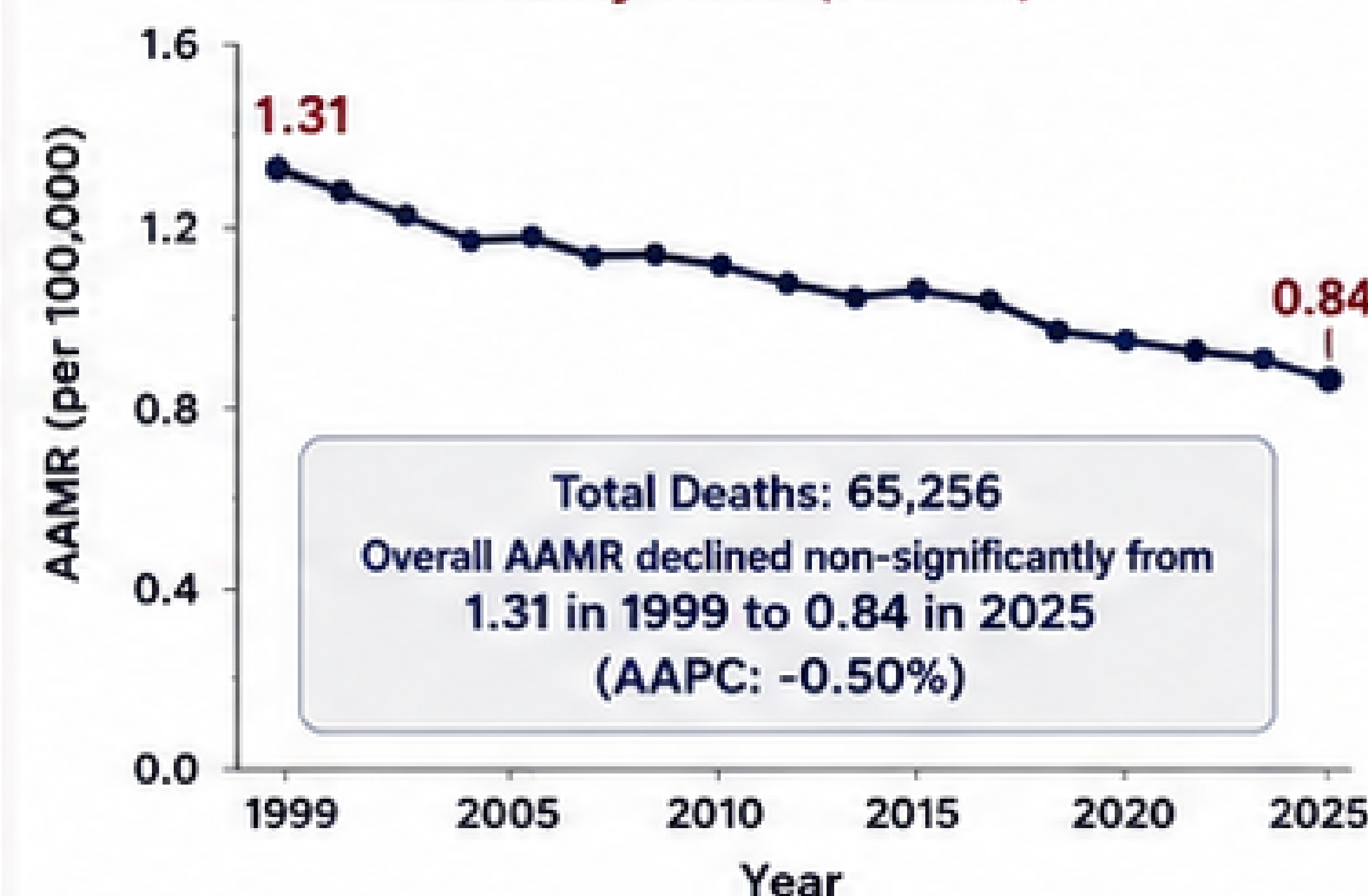
CONCLUSION

Mortality from multiple myeloma with renal failure has significantly declined among middle-aged and older adults, Asian and Hispanic populations, and most urban-rural areas. However, stagnant mortality in the **oldest old (≥85 years)** and **Black populations** warrants continued surveillance and targeted nephroprotective strategies.

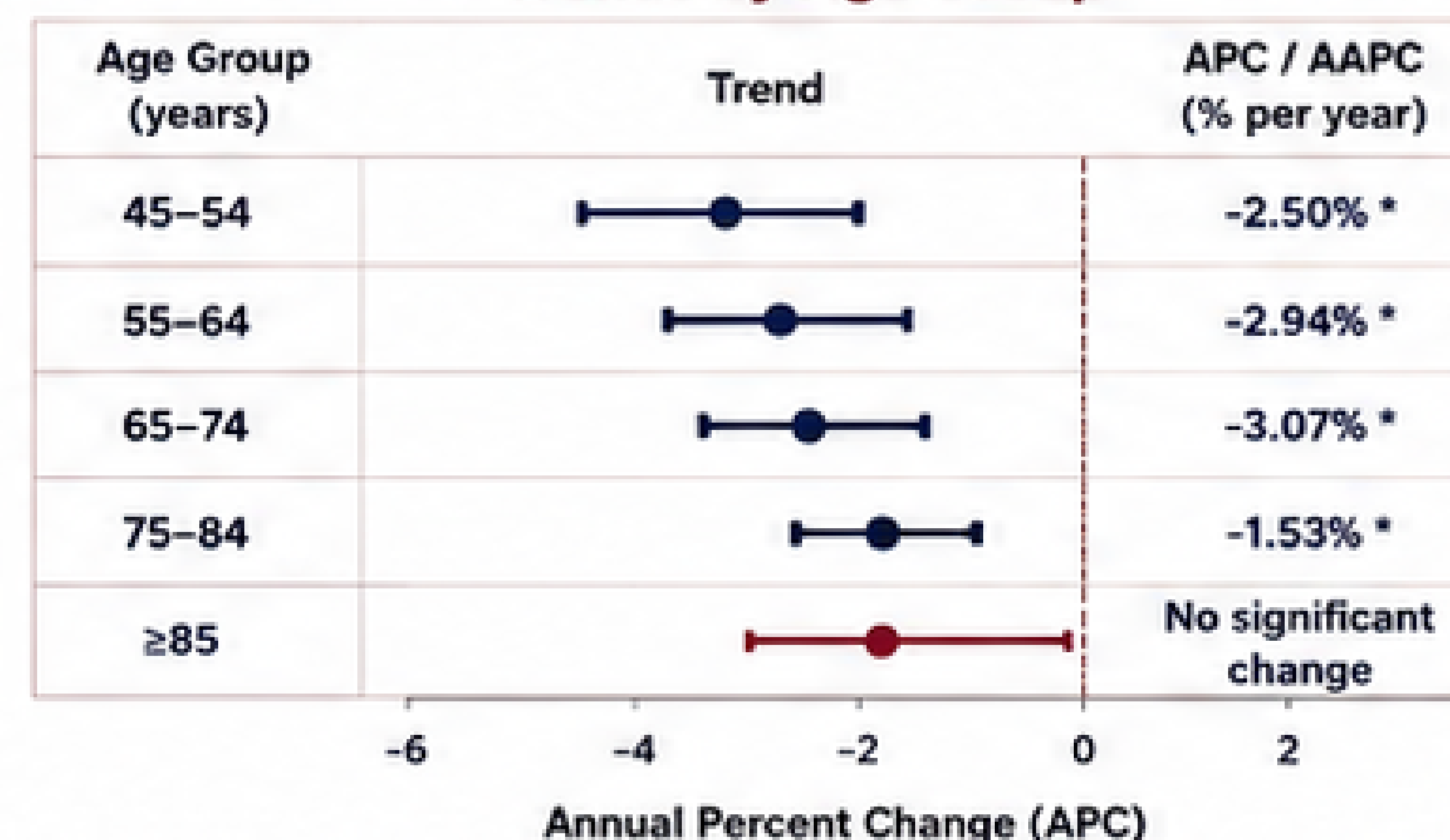


RESULTS

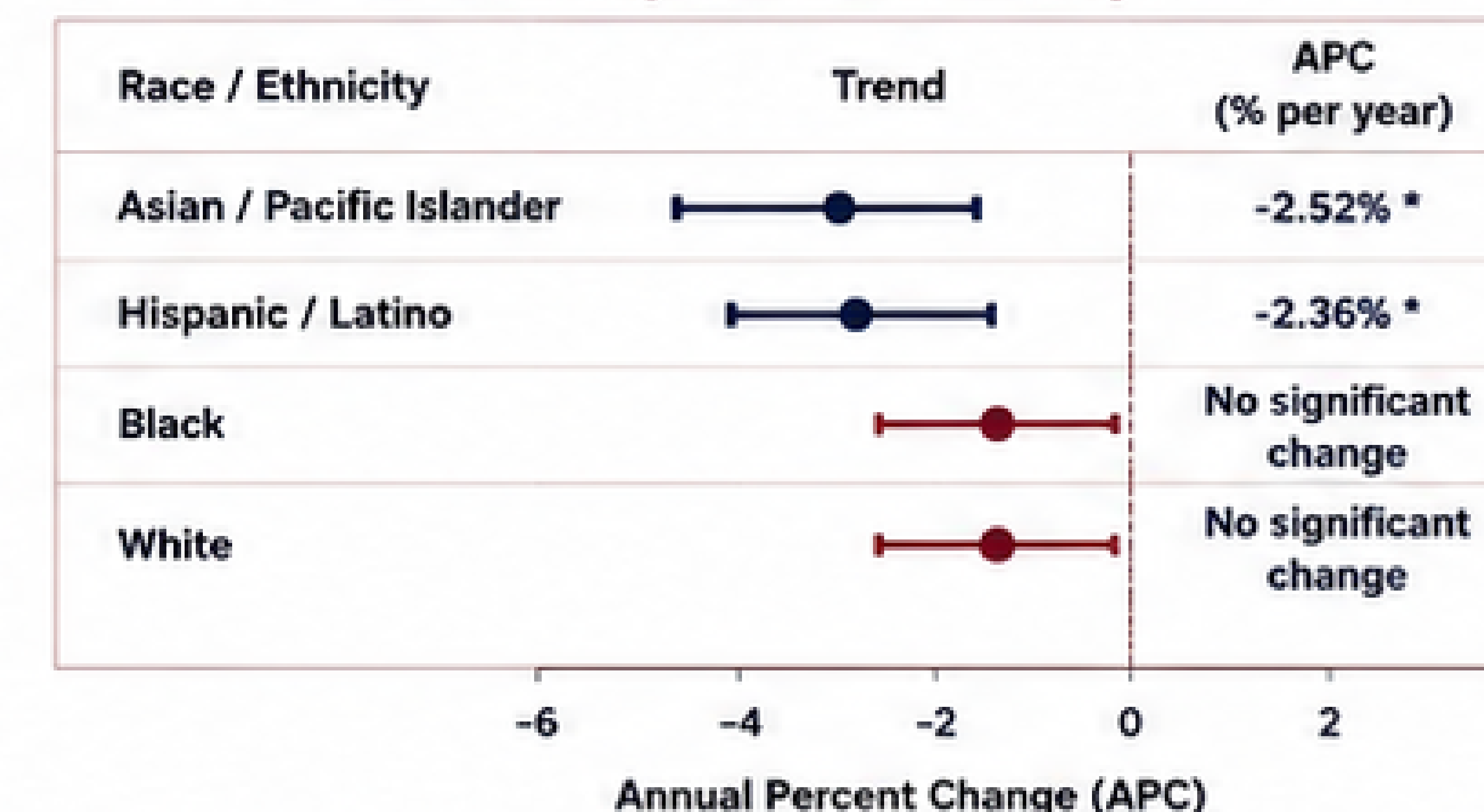
Overall Trend in Age-Adjusted Mortality Rate (AAMR)



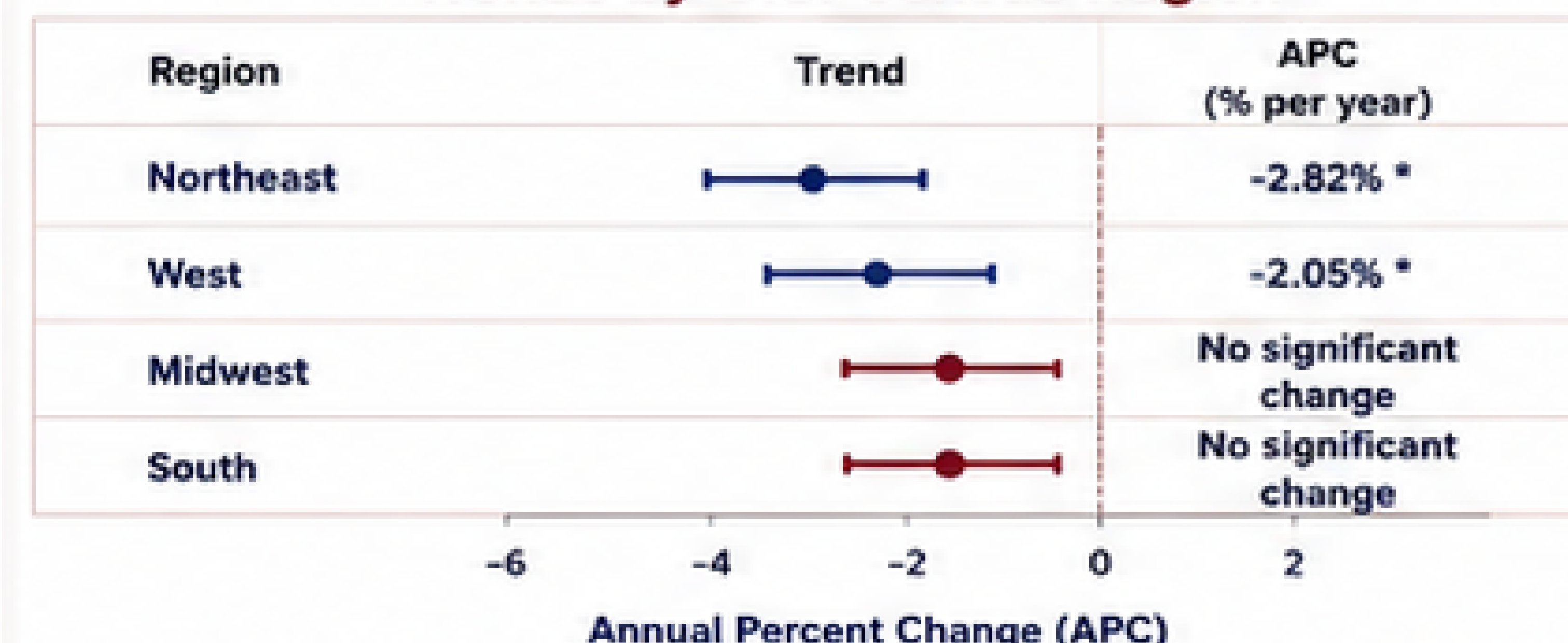
Trends by Age Group



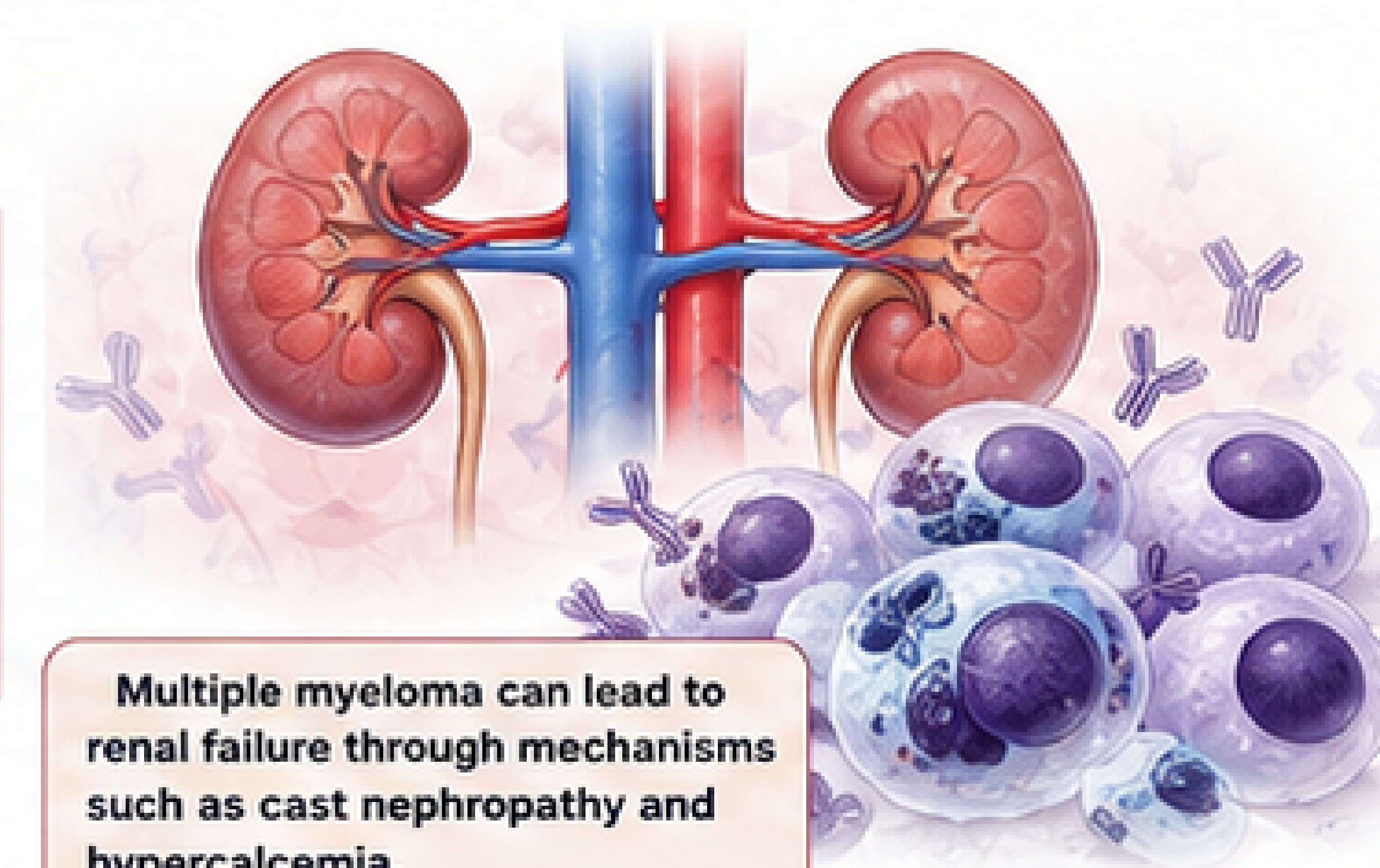
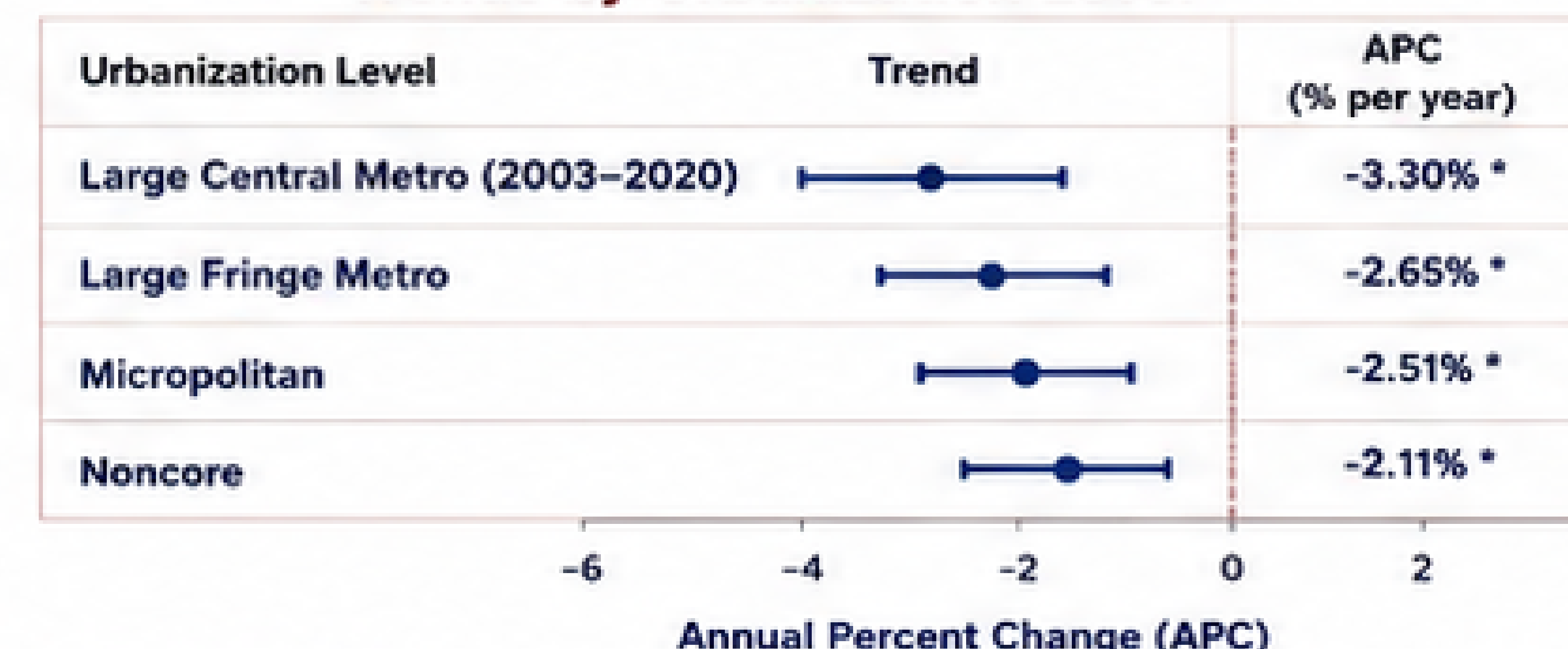
Trends by Race / Ethnicity



Trends by U.S. Census Region



Trends by Urbanization Level



Multiple myeloma can lead to renal failure through mechanisms such as cast nephropathy and hypercalcemia.