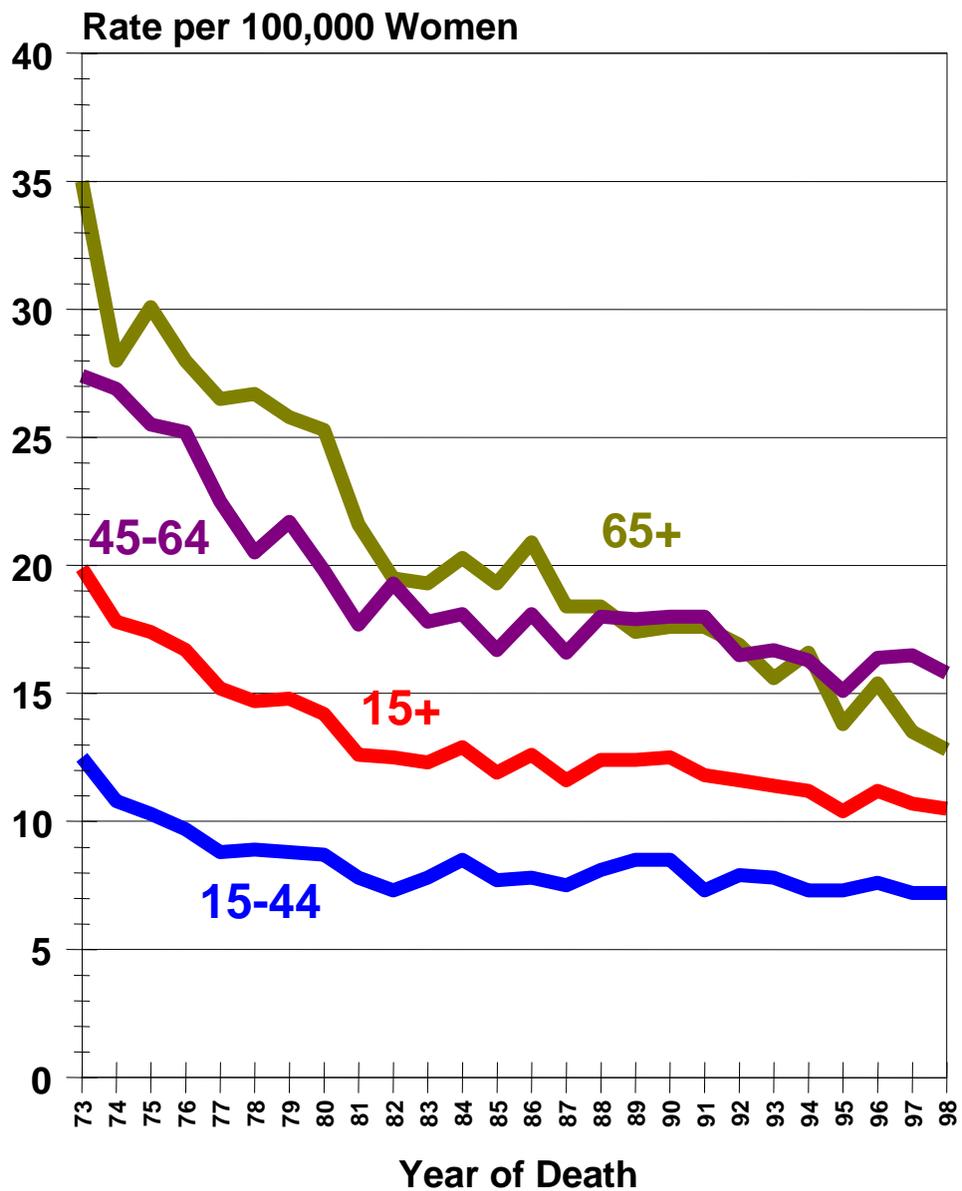


# Reducing Health Disparities In High Cervical Cancer Mortality Regions

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# SEER Incidence Cervical Cancer



Source: NCHS Mortality Data  
Age-Adjusted to 1970

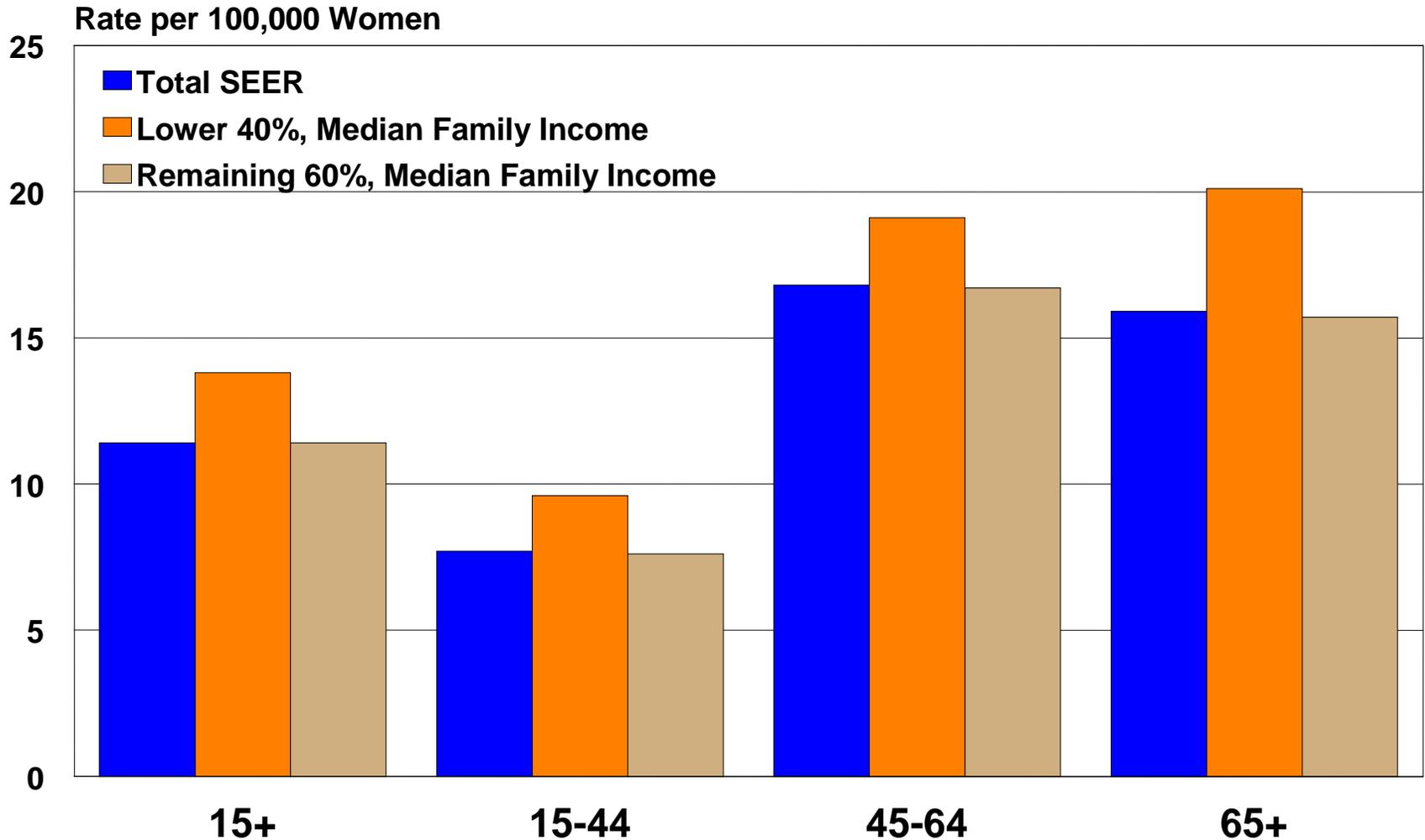
# **Measures of SES**

## **1990 Census County Level Data**

- **Median Family Income**
- **% at Least High School Education**
  
- **Counties grouped into quintiles**
- **Lowest 40% vs Remaining 60%**

# SEER Malignant Cervical Cancer Incidence 1988-1998

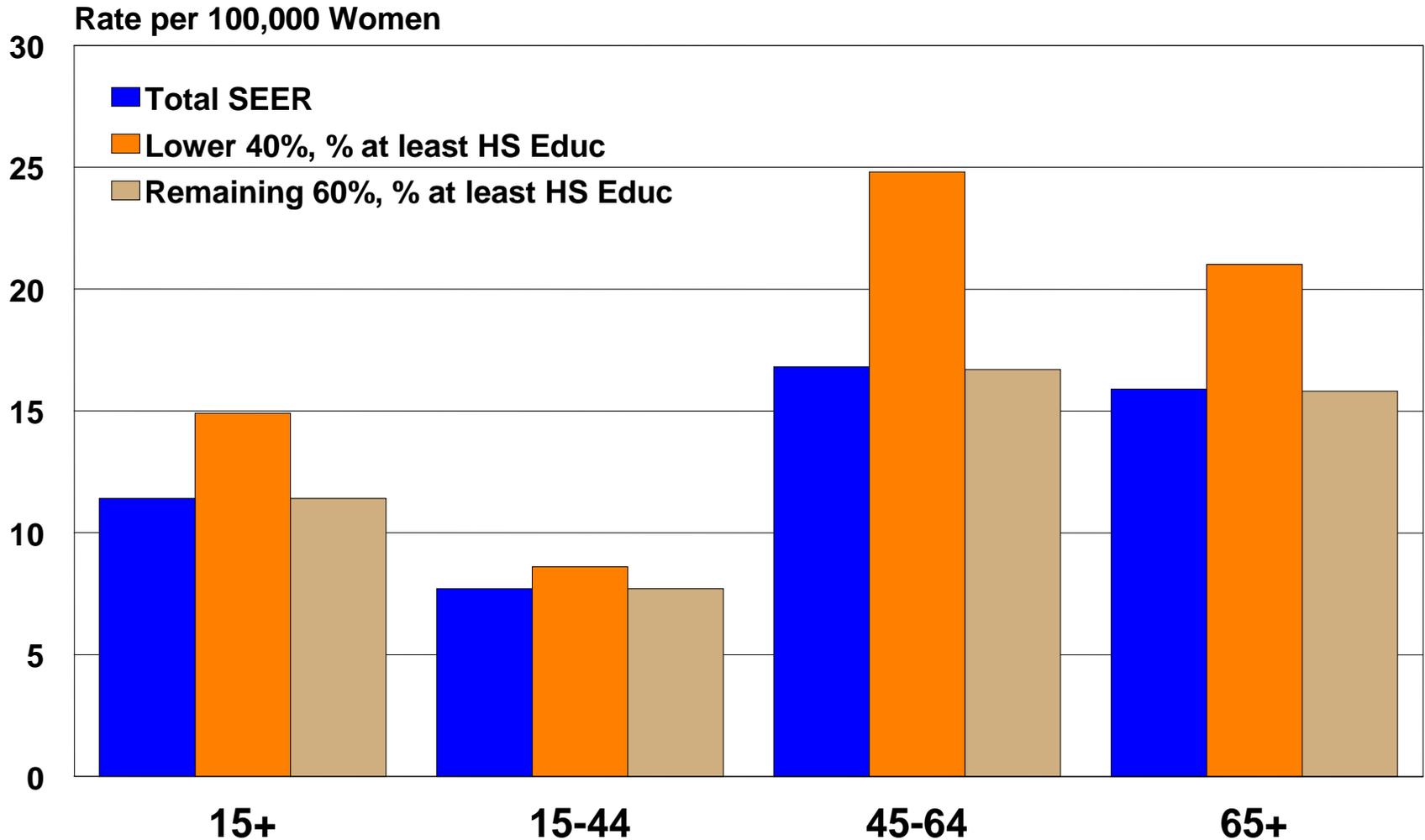
## By Age and Median Family Income All Races



Source: SEER 9 Registry  
Age-adjusted to 1970 US Standard

# SEER Malignant Cervical Cancer Incidence 1988-1998

## By Age and % at least High School Education All Races

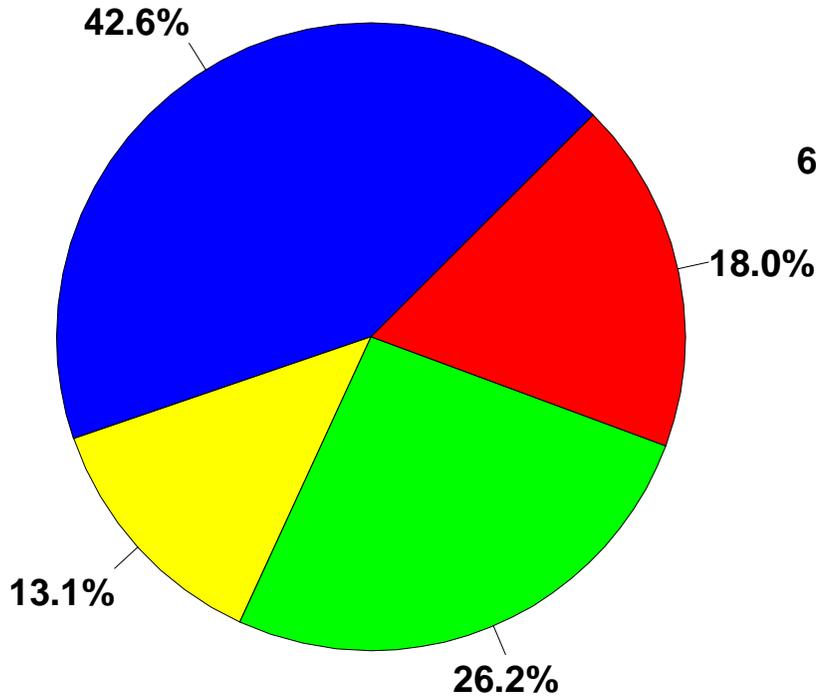


Source: SEER 9 Registry  
Age-adjusted to 1970 US Standard

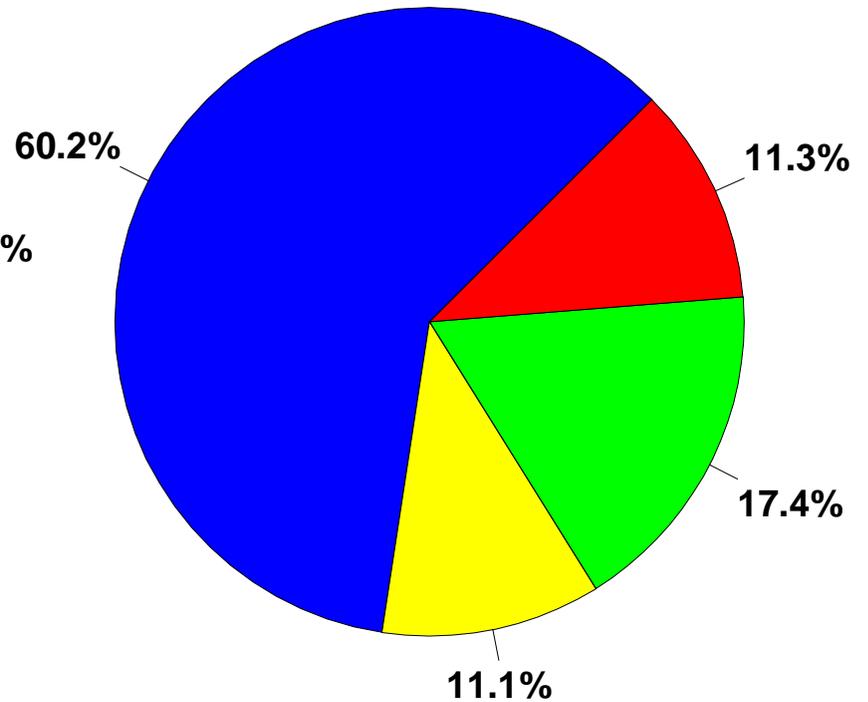
# Malignant Cervical Cancer 1988-1998

## Stage by % at Least High School Education

Lowest 20%, % at least HS Education



Remaining 80%, % at least HS Education



■ Stage I ■ Stage II ■ Stage III ■ Stage IV

# Factors Influencing Probability of Dying

- **Women diagnosed with cervical cancer from 1988-1998 (AJCC Staging available in SEER from 1988+), one and only one primary**
- **Status of alive vs dead due to cancer**
- **Logistic regression**
- **Unadjusted**
- **Factors examined**
  - **Ages 15-45 vs ages 45+ (proxy childbearing range)**
  - **Stage I vs Stage II-IV (early vs. late)**
  - **Urban vs Rural (Beale 0-5 vs. Beale 6-9)**
  - **Lowest 40%, Median Family Income vs Remaining 60%, Median Family Income**
  - **Lowest 40%, at Least HS Education vs Remaining 60%, at Least HS Education**

## Odds Ratios

### Age

<45	1.0
45+	2.135 (1.92-2.38)

### Stage

Stage I	1.0
Stage II-IV	9.920 (8.68-11.33)

### Urban/Rural

Rural	1.0
Urban	1.240 (1.01-1.52)

## Odds Ratios

### Median Family Income

Top 60%	1.0
Bottom 40%	1.150 (0.84-1.58)

### % at Least High School Education

Top 60%	1.0
Bottom 40%	1.722 (1.14-2.61)

# Summary

- Despite the long term availability of an effective screening tool and initial declines, invasive cervical cancer incidence has leveled off at a level far from zero.
- Differentials in incidence exist across various measures of SES.

# Summary

- You are more likely to die of your cervical cancer if you:
  - are diagnosed at a later stage
  - are older
  - live in communities with lower educational attainment
  - live in an urban setting\*

\* May need to review when data from SEER expansion areas (e.g. more rural) are included.