**DIABETES AND ISCHEMIC HEART DISEASE DEATH IN PEOPLE AGE 25-54: A MULTIPLE-CAUSE-OF-DEATH ANALYSIS BASED ON OVER 400 000 DEATHS FROM 1990 TO 2008 IN NEW YORK CITY**

**A.M. Quinones1**, I. Lobach1, G.A. Maduro2, N.R. Smilowitz1, H.R. Reynolds1

1. NYU Langone Medical Center, New York, NY, USA

2. Department of Health and Mental Hygiene, New York, NY, USA

*Background*: Over the past decade, ischemic heart disease (IHD) mortality trends have been less favorable among adults age 25-54 than age ≥55 years.

*Hypothesis*: Disorders associated with IHD such as diabetes, chronic inflammatory and infectious diseases, and cocaine use are important contributors to premature IHD mortality.

*Methods:* Multiple-cause-of-death analysis was performed using the New York City (NYC) Vital Statistics database. Frequencies of selected contributing causes on death records with IHD as the underlying cause for decedents age ≥25 were assessed (n = 418,151; 1990-2008). Concurrent Telephone risk-factor surveys (NYC Community Health Survey, Centers for Disease Control Behavioral Risk Factor Survey in New York State) were analyzed.

*Results:* In sum, a pre-specified contributing cause was identified on 13.6% of death certificates for IHD decedents age 25-54. Diabetes was reported more frequently for younger IHD decedents (15% of females and 10% of males age 25-54 vs 6% of both sexes age ≥55). In contrast, concurrent diabetes prevalence in New York State was 3.4% for those age 25-54 and 13.6% for those age >55 (P < 0.0001). Systemic lupus erythematosus, human immunodeficiency virus, and cocaine were also more likely to contribute to IHD death among younger than older people.

*Conclusions:* Diabetes may be a potent risk factor for IHD death in young people, particularly young women, in whom it was reported on IHD death records at a rate 5X higher than local prevalence. The high frequency of reporting of studied contributing causes in younger IHD decedents may provide a focus for further IHD mortality-reduction efforts in younger adults.