

# Healthy Life Expectancy in Mexico and the U.S.: A cross-national comparison

Poster prepared for presentation at the  
Population Association of America Meetings,  
Boston, April 2004

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# Objectives

- Contrast the age-patterns of healthy life expectancy among individuals aged 70 and older, across comparable sub-groups in Mexico and the U.S.
  - ✓ Sub-groups defined by sex, race/ethnicity in the U.S., and former U.S. migration in Mexico.
  - ✓ Various dimensions of health: functionality (ADL, IADL), and self-report of illness.

# Hypotheses

- Functionality and health at old age, overall *worse* in Mexico than in the U.S.
- In particular, healthy life expectancy *lower* for those who reside in Mexico and are former U.S.-migrants, compared to Mexicans currently residing in the U.S.
- Patterns differ across various measures of functionality and health.

# Three dimensions of old-age health

- *Disability-free life expectancy*: Absence of IADL difficulty, including to take medication, go shopping, prepare hot meal, and handle money.
- *Active-life expectancy*: Absence of ADL difficulty, including to walk, eat, bathe, get in and out of bed, and use toilet.
- *Healthy life expectancy*: Absence of chronic morbid conditions. Specifically heart problem, stroke, high blood pressure, and diabetes.

# Universes of Comparison

- *In United States:*
  - ✓ Mexican American  
US-born
  - ✓ Mexican, Mexico-born
  - ✓ Non-Hispanic White
  - ✓ Non-Hispanic Black
- *In Mexico*
  - ✓ Return migrants-  
ever in the U.S.
  - ✓ All other Mexican

# Methodology

- Sullivan Method to estimate healthy life expectancy.
  - ✓ Reflects current health of a population adjusted for age-specific mortality (Jagger 1999).
- Data requirements:
  - ✓ Functional limitation and disease prevalence rates, usually obtained from survey data.
  - ✓ Age-specific population and death counts, to construct life tables.
- Advantages:
  - ✓ Estimates healthy years remaining at age X.
  - ✓ Longitudinal data is not required.
- Limitation: Does not take into account health transitions.

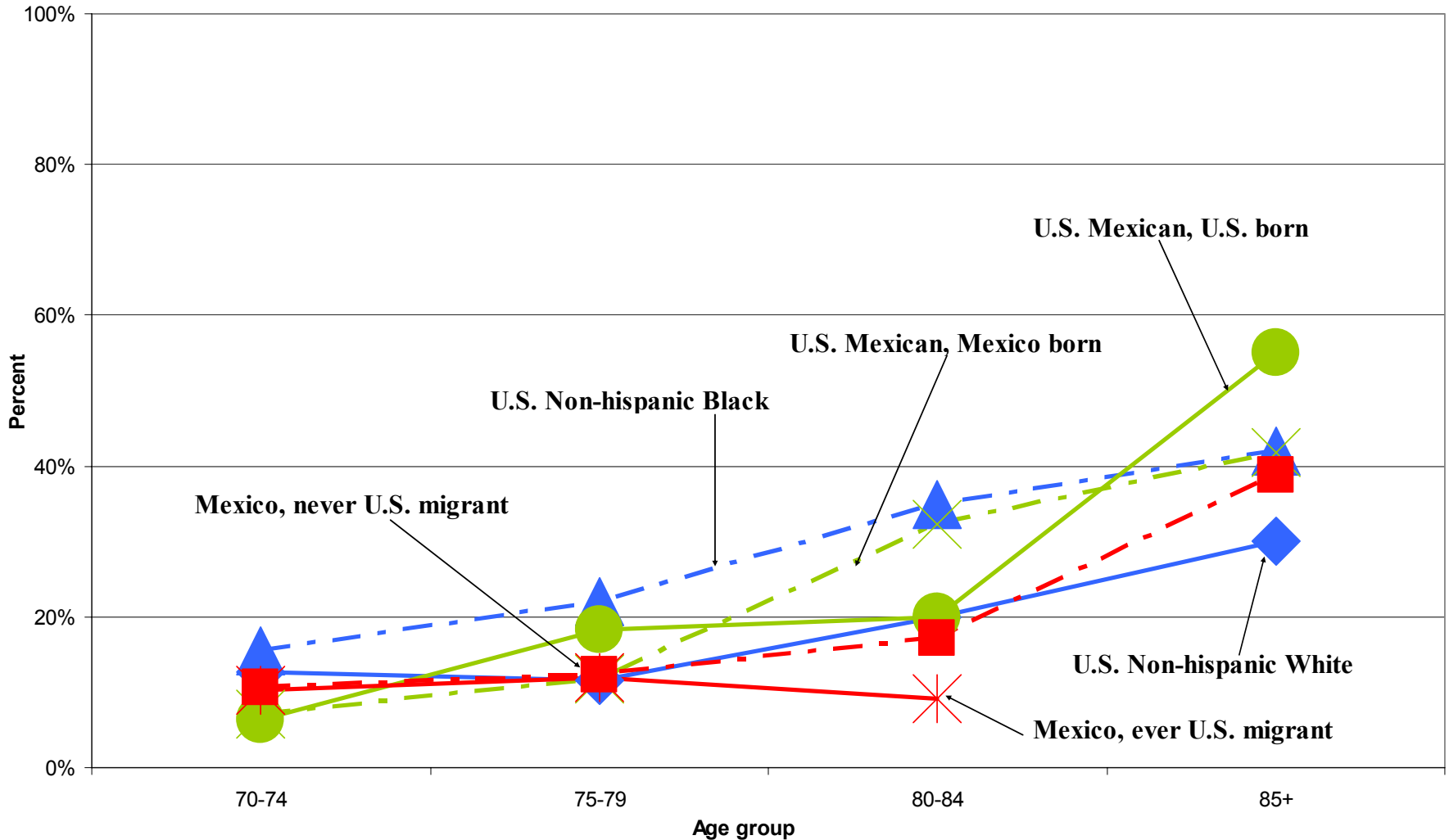
# Data

- Mexican Health and Aging Study (MHAS), for sample of Mexico-residents who are former U.S. migrants.
- U.S. Hispanic- Established Populations for Epidemiological Study of the Elderly (H-EPESE), for sample of Mexico-born living in the U.S.
- U.S. Health and Retirement Study (HRS), for comparable non-Hispanic Whites and Blacks.
- U.S. Census and Multiple Cause of Death Files.
- Mexico Census and Vital Registration of Deaths.

# Sample Size by Data Set, Men Age 70+

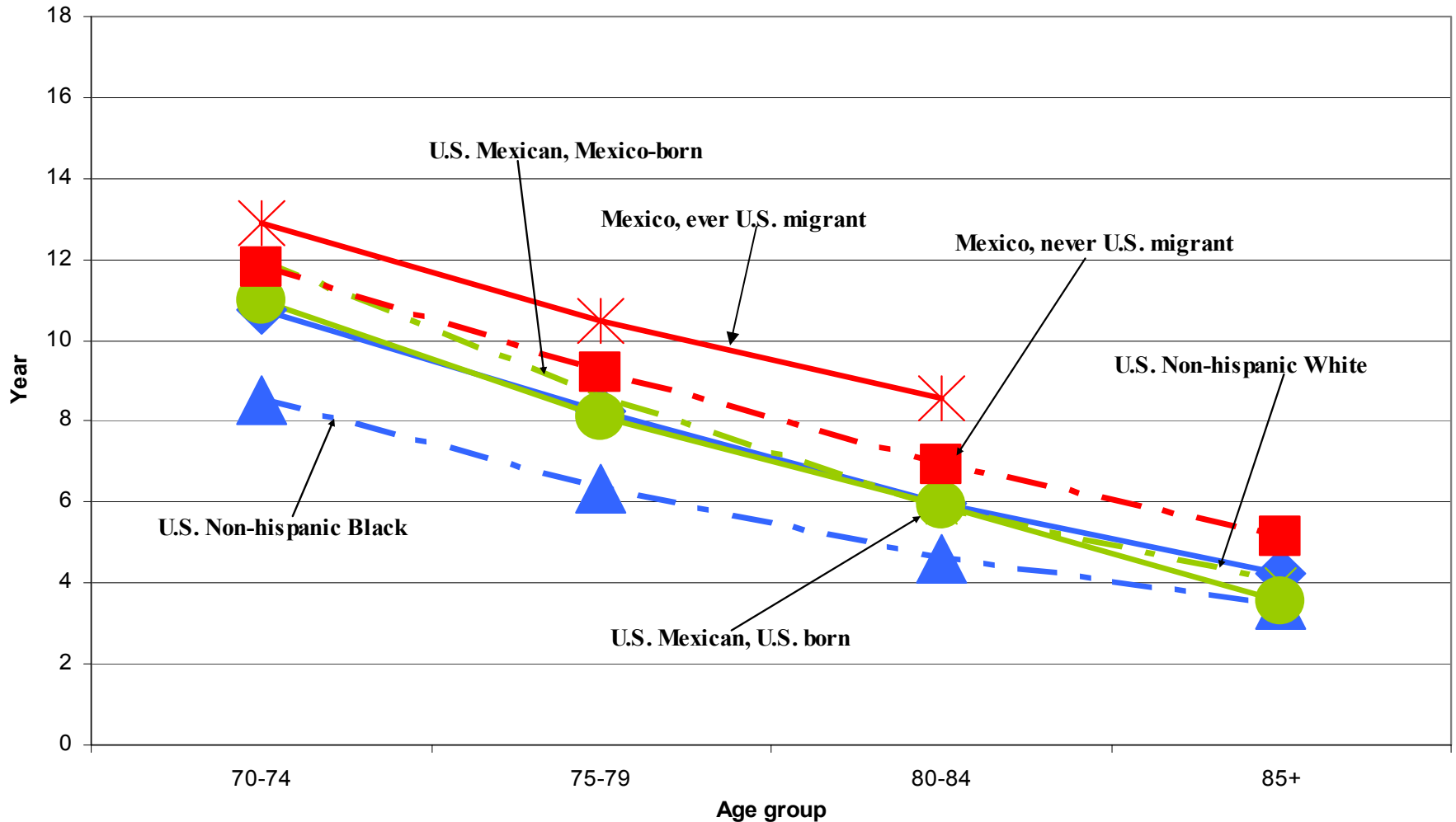
Age	U.S. (HRS 2000) N=2794		U.S. Mexican (H-EPESE 1998) N=742		Mexico (MHAS 2001) N=1257	
	Non-Hispanic White	Non-Hispanic Black	US born	Mexico born	Ever US migrant	Never US migrant
70-74	973	109	162	119	109	450
75-79	819	92	131	101	104	299
80-84	493	61	66	60	59	136
85+	371	56	37	66		100

# Prevalence rates (1+ ADL limitation), for Men, by country of residence, birth, and race/ethnicity



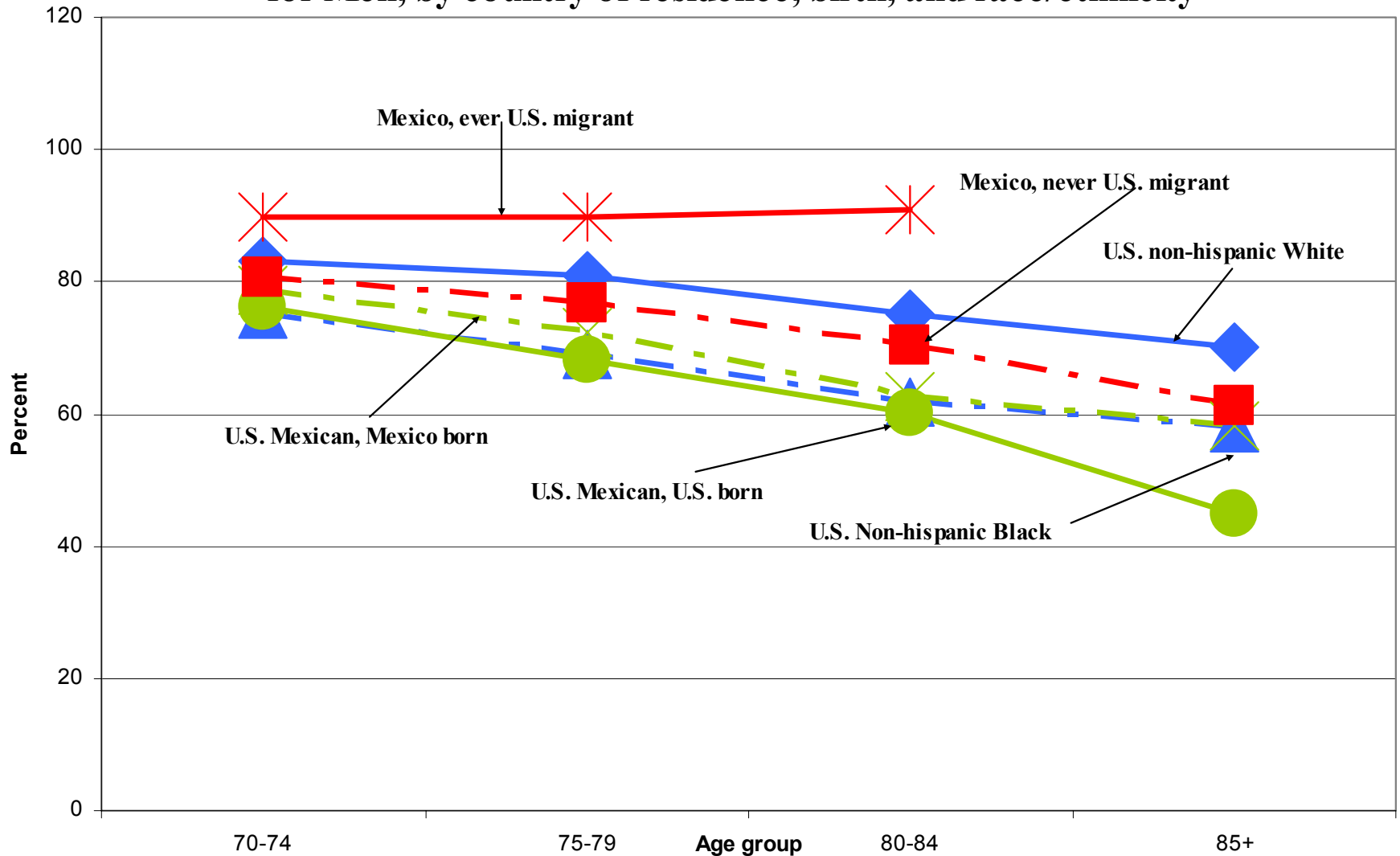
# Years of active life expectancy (ADL)

for Men, by country of residence, birth, and race/ethnicity



# % Active life expectancy (ADL)

for Men, by country of residence, birth, and race/ethnicity

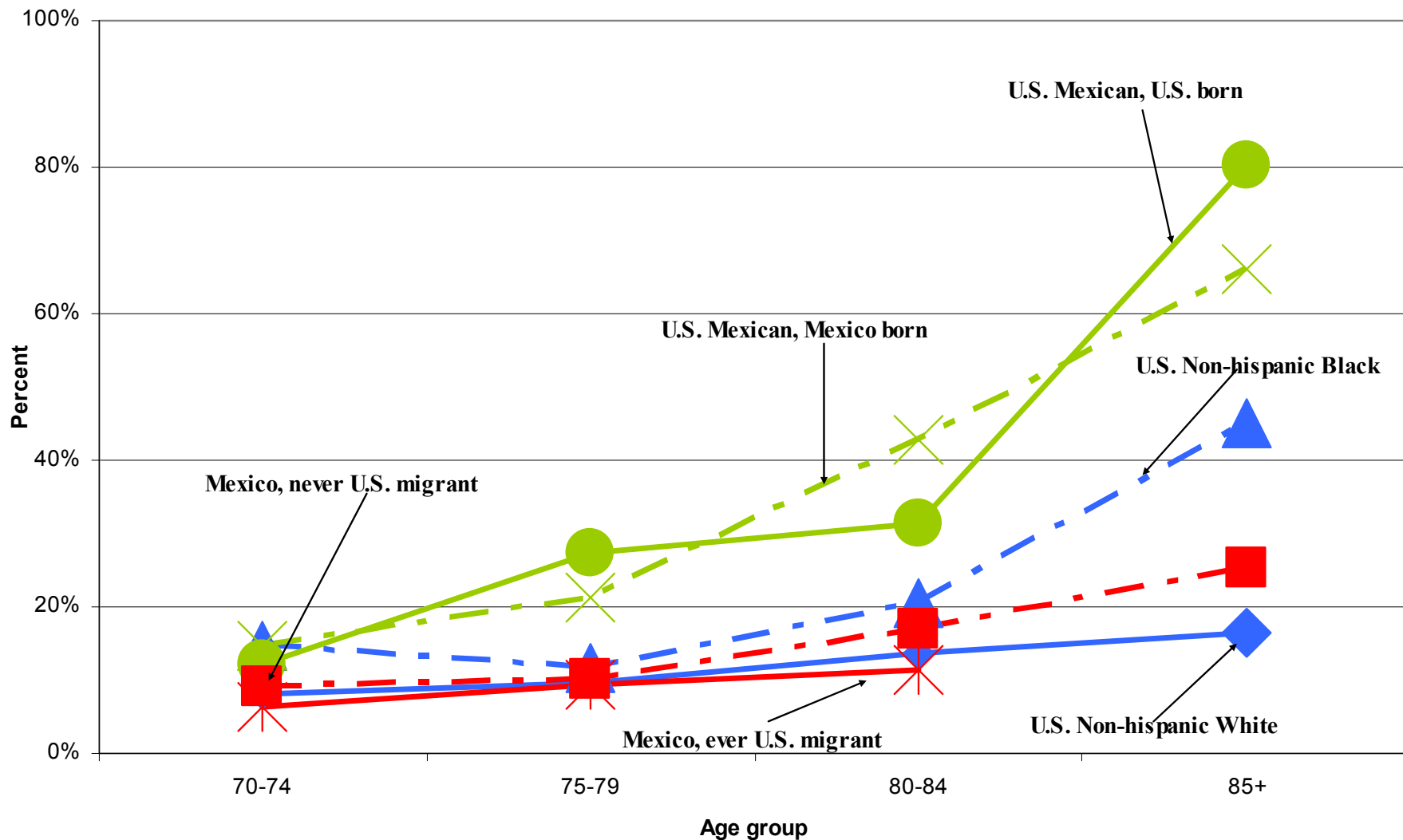


# Results: ADL Limitations

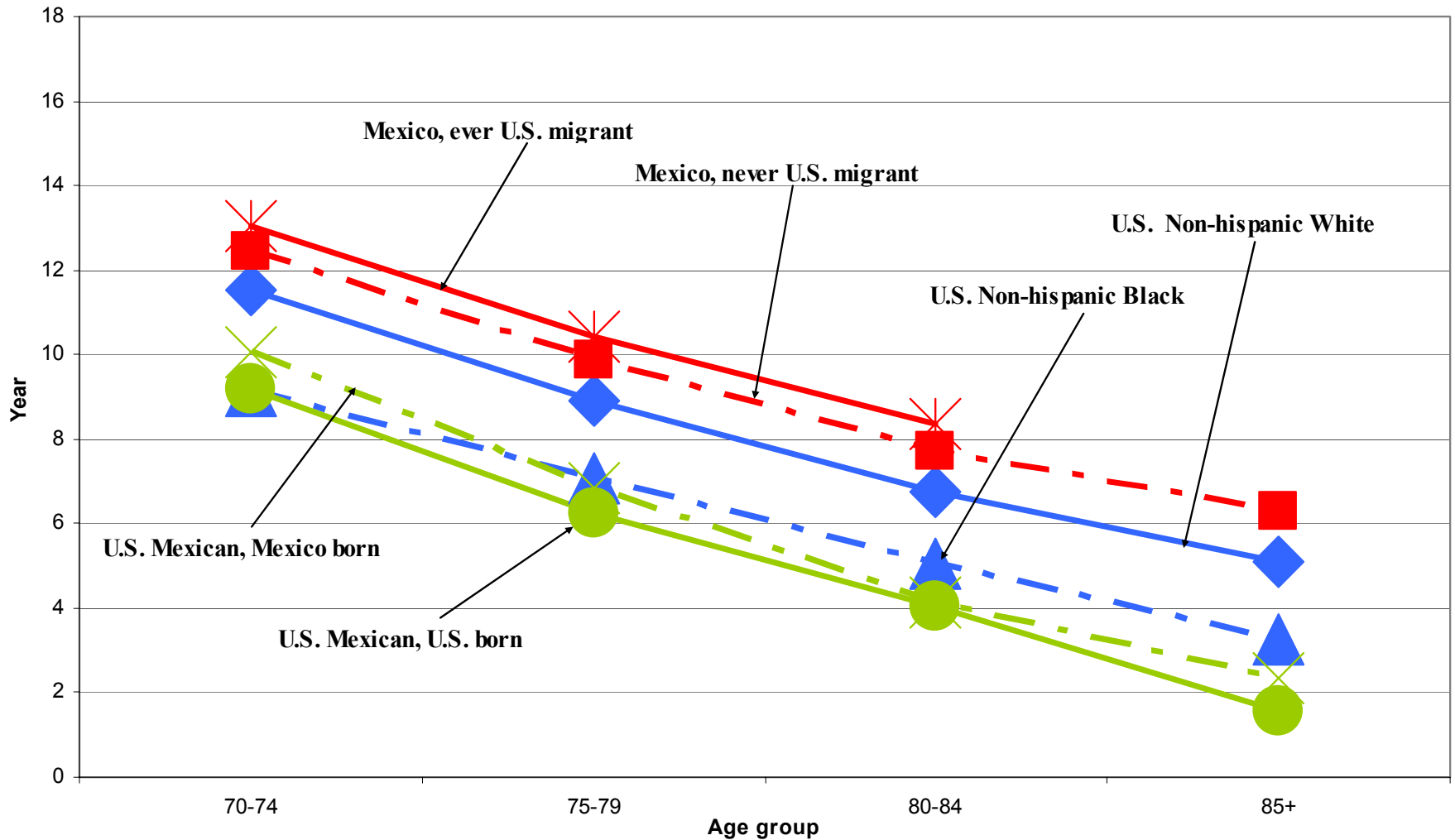
- Mexicans in Mexico (migrants or not) show the *highest* active life expectancy.
- U.S. blacks show the *worst*, followed by Mexican-Americans and Mexicans in the U.S.

# Prevalence rates (1+ IADL limitation)

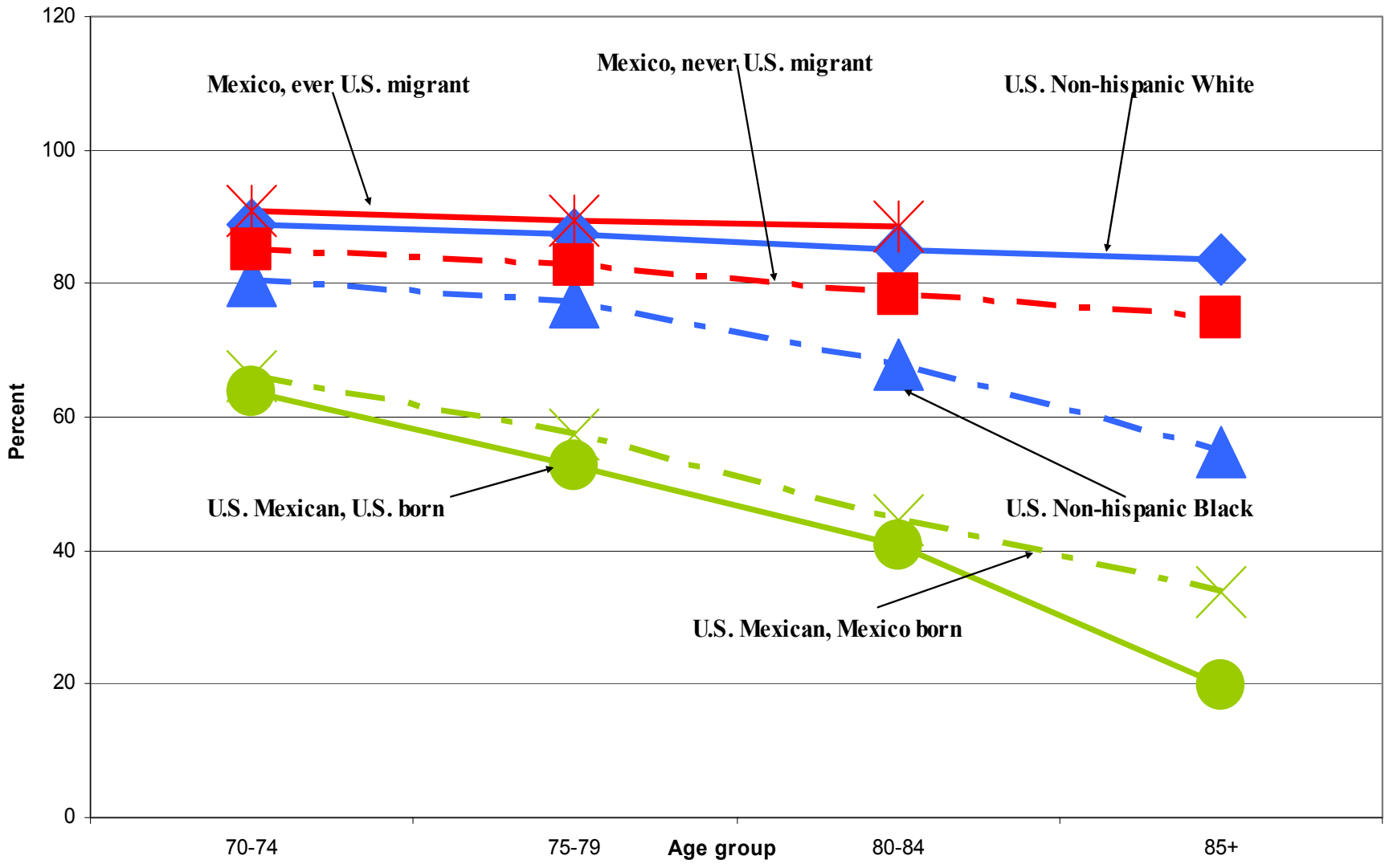
for Men, by country of residence, birth, and race/ethnicity



# Years of disability-free life expectancy (IADL) for Men, by country of residence, birth, and race/ethnicity



# % Disability-free life expectancy (IADL) for Men, by country of residence, birth, and race/ethnicity

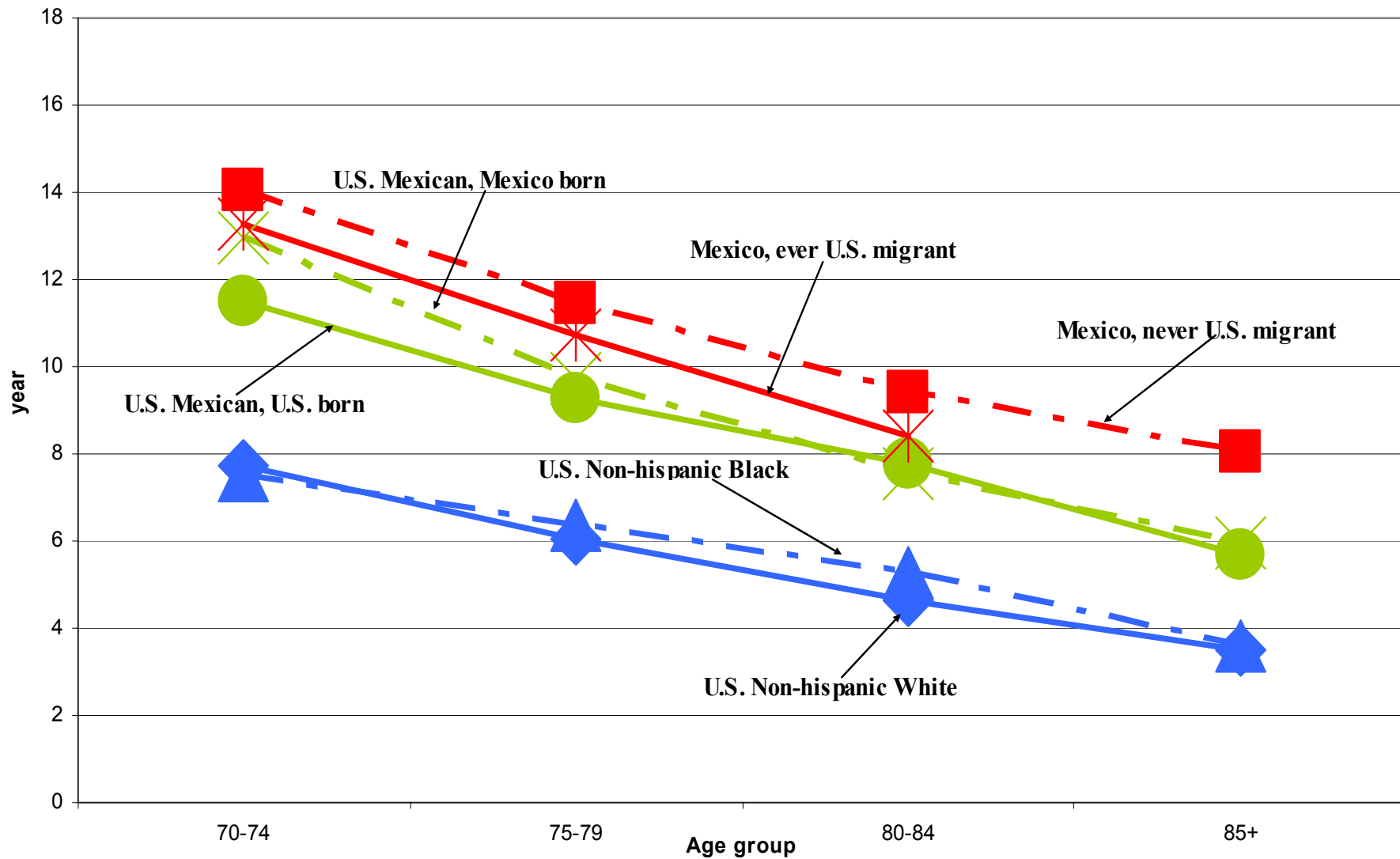


# Results: IADL Limitations

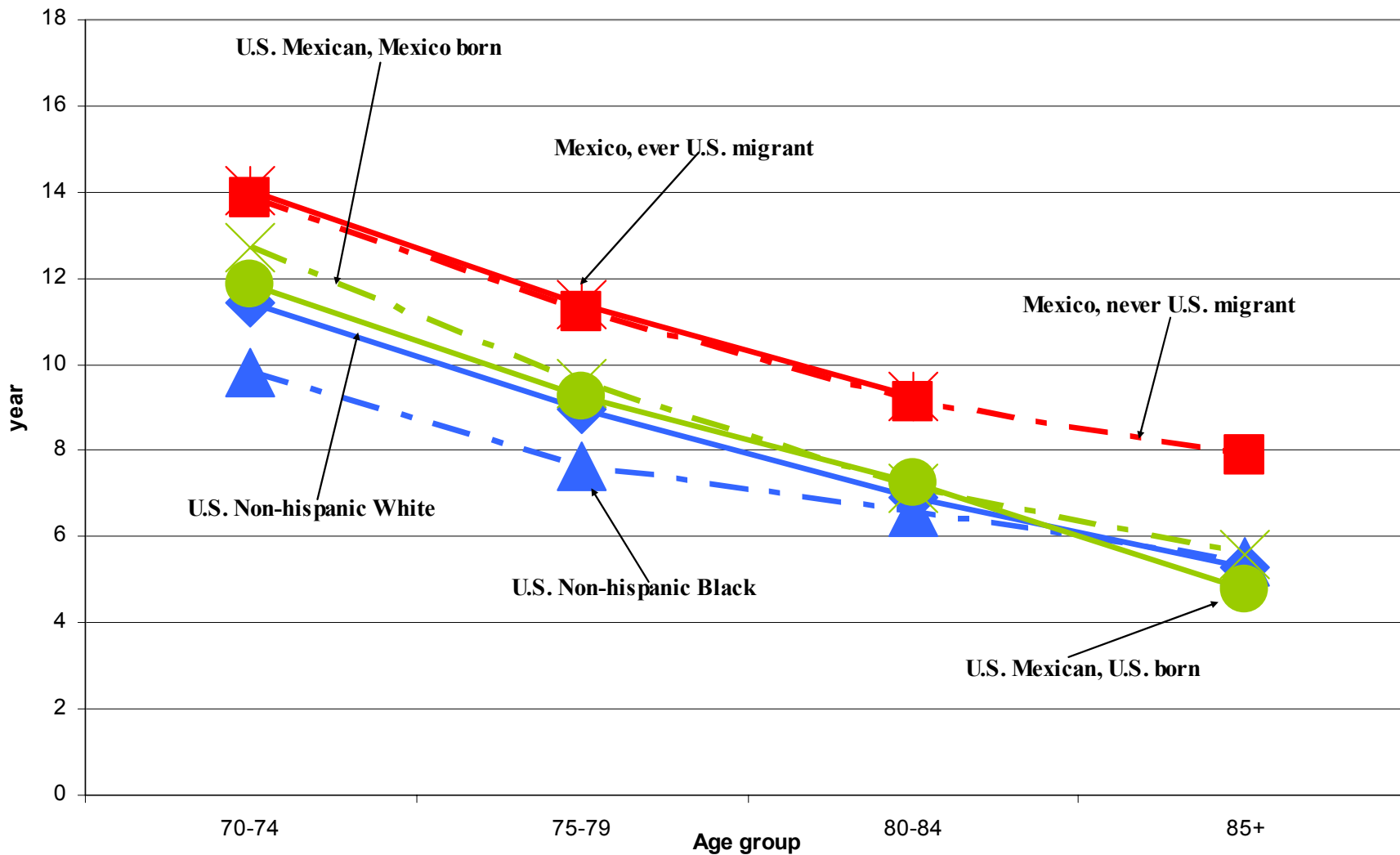
- Mexicans in Mexico show the *highest* disability-free life expectancy.
- Mexican-Americans and Mexicans in the U.S. show the *lowest*.
- U.S. non-Hispanic Whites and Blacks fall *in-between*.

# Years of healthy life expectancy (HEART PROBLEM)

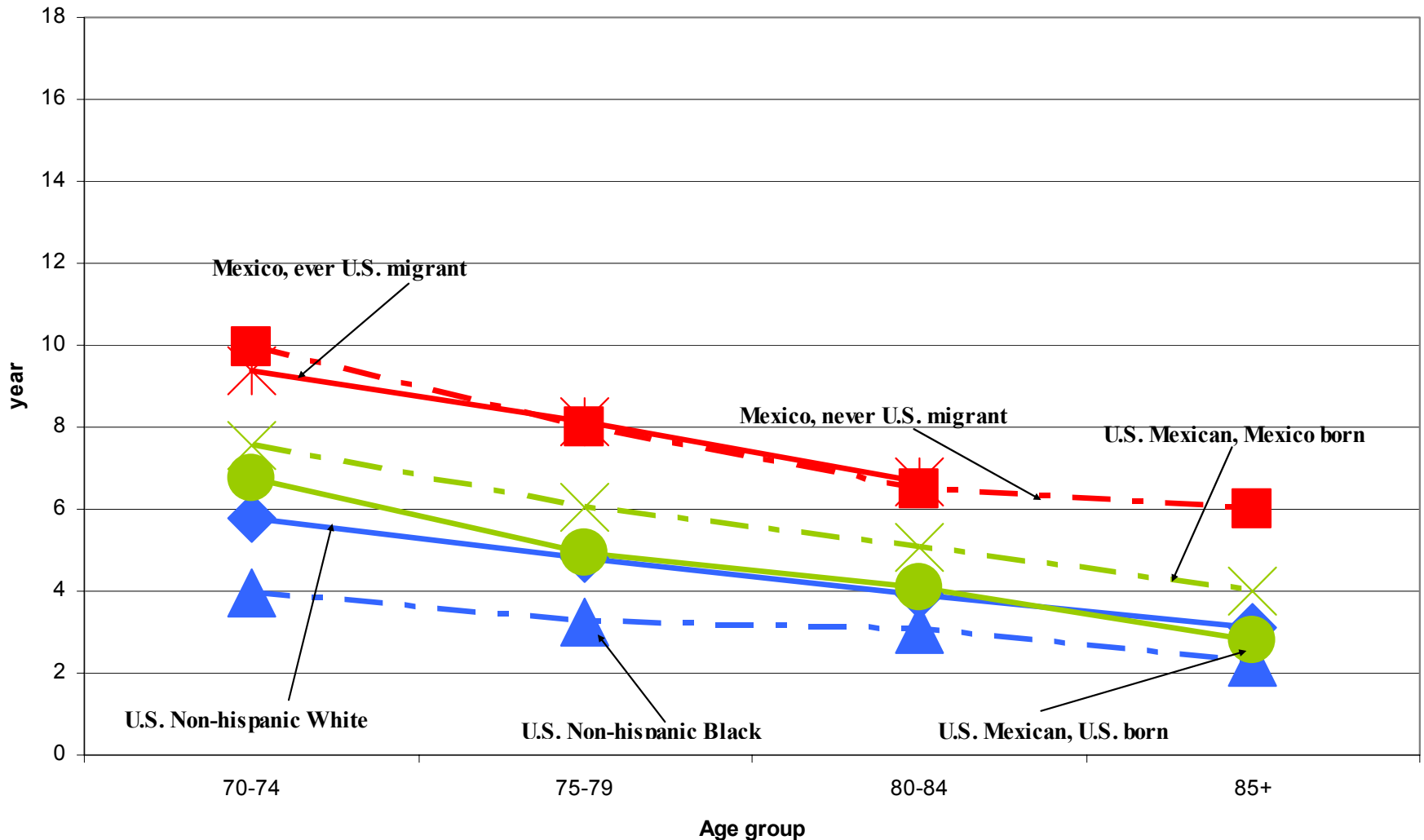
for Men, by country of residence, birth, and race/ethnicity



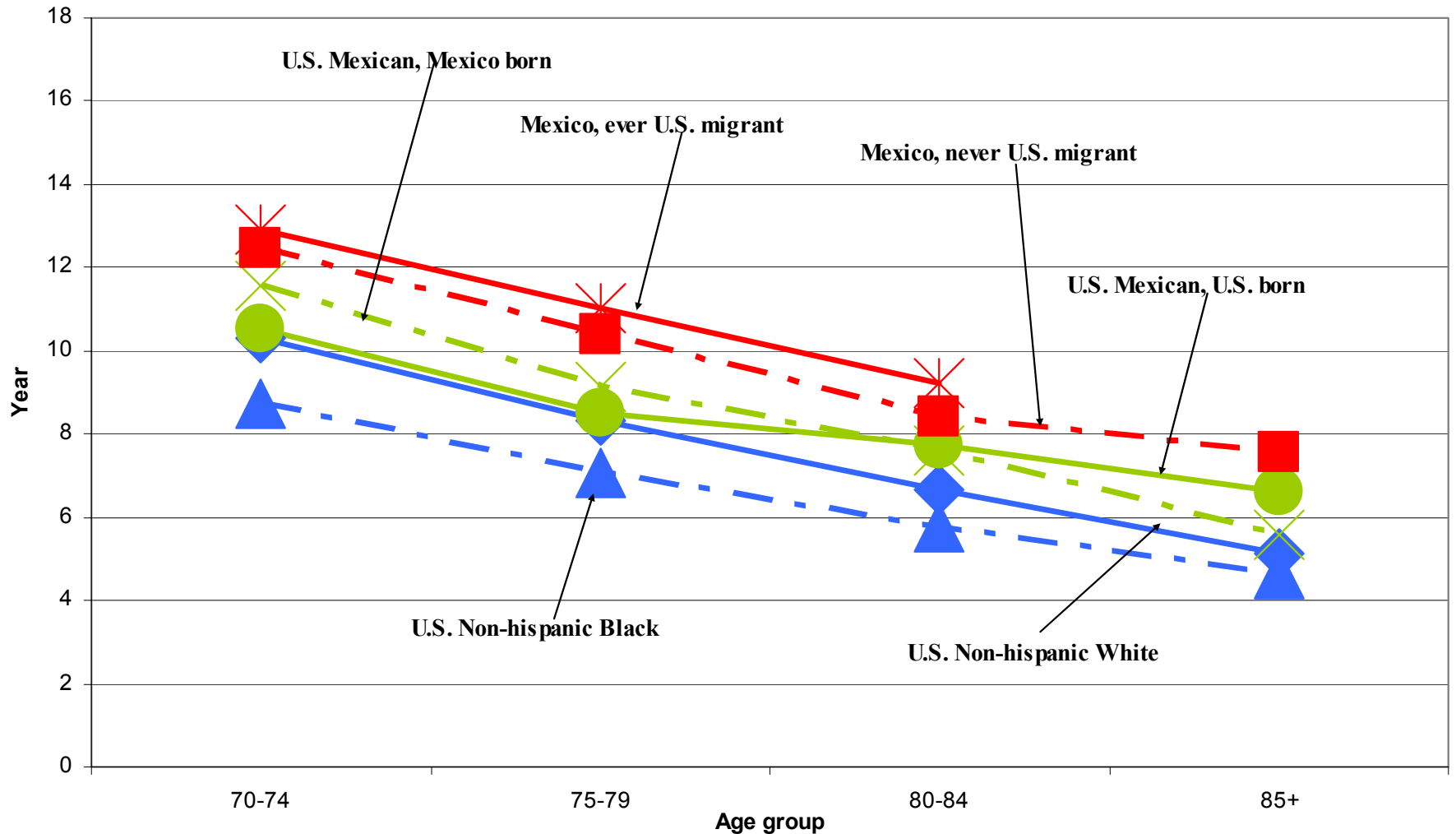
# Years of healthy life expectancy (STROKE) for Men, by country of residence, birth, and race/ethnicity



# Years of healthy life expectancy (HIGH BLOOD PRESSURE) for Men, by country of residence, birth, and race/ethnicity



# Years of healthy life expectancy (DIABETES) for Men, by country of residence, birth, and race/ethnicity



# Results: Chronic Diseases

- Mexicans in Mexico have the *highest* healthy life expectancy (using heart disease, stroke, high blood pressure, diabetes).
- U.S. non-Hispanic Blacks have the *lowest*.
- In general, Mexicans in the U.S. are *intermediate*.

# Conclusions

- Reject hypothesis: results for individuals 70+ show *better* functionality and health in Mexico than in the U.S.
- In particular, Mexicans (migrants or not) in Mexico show better health than Mexicans in the U.S.
- Results hold for ADL, IADL, and chronic conditions; for men and women.
- Slightly different ranking of the groups with IADL limitations, but Mexicans in Mexico still show advantage.

# Discussion

- Overall, results for healthy life expectancy follow the patterns of prevalence rates.
- Cross-national differences in *report or diagnosis* of conditions need to be studied further.
- Future work: cross-national comparisons using health *transitions*.