Depressive Symptoms, Chronic Conditions, and Active Life Expectancy in Older Adults

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Purpose of Study

- Medical practitioners often discount the need for mental health services in older adults

  - “They’re depressed because they have chronic conditions”

Is this True?

- RESEARCH QUESTIONS:
  - Would depressive symptoms in older adults independently affect ALE?
  - Or do they affect ALE only when chronic conditions are also present?

Methods

- AHEAD Survey, 1993-1998
  - 70 and older (n=7,381) Community Dwelling Adults
  - Population-weighted
- Multistate Lifetable, using IMaCh
  - 2-year transition probabilities
  - T,A,D Life Expectancies
- Logistic Regression on Probability of Dying or Becoming Disabled b/ 1993-1998
  - DS alone
  - w/ each of CC's

Measures

- Summary Measure of Population Health
  - Active Life Expectancy– no difficulty with any of 6 ADLs;
  - Disabled Life Expectancy – difficulty with any of them
- Depressive Symptoms: CES-D Shortened Version

  1(Y) if scored 6+ on CESD8 (Turvey, Wallace & Herzog,1999), else 0 (N)

  Cancer – has a doctor ever told you you have…1(Y) 0(N)

  Diabetes -- do you have ….now “ “

  Heart Disease -- has a doctor ever told you “

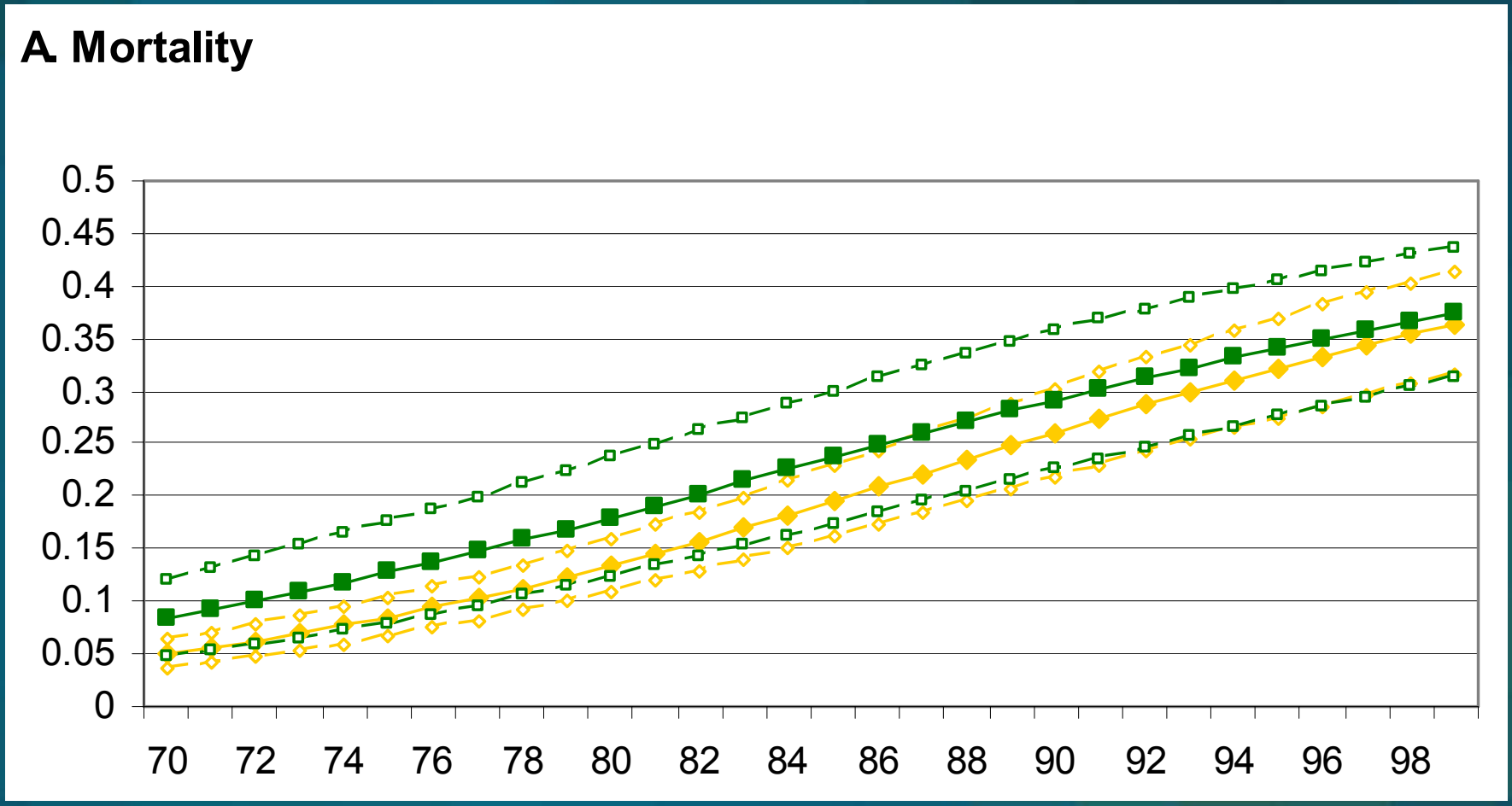
  Stroke -- 1 (Y) if yes; 0 (N) if TIA or no.

Methods cont'd

- Men and Women separately
- Depressive Symptoms as covariate
  - Depressive Symptoms and individual chronic conditions – HD, CVA, Diabetes, Cancer– as covariates

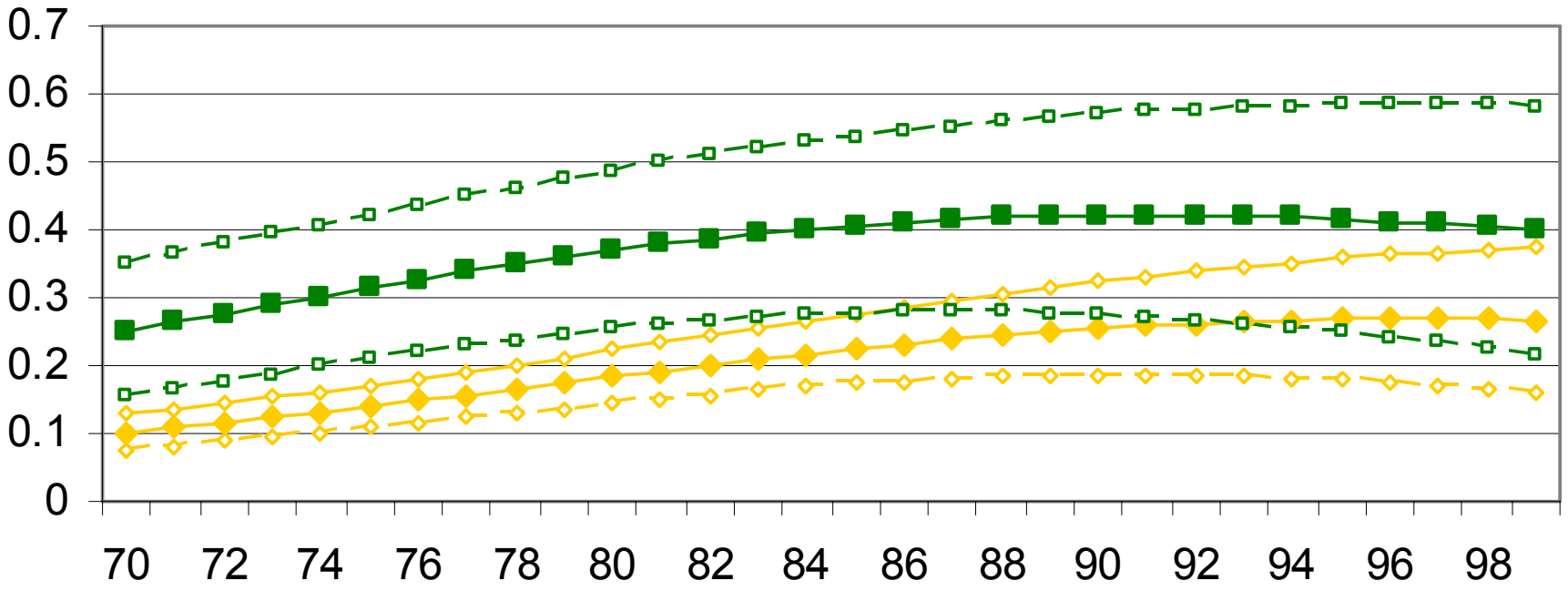
- Statistical Analysis:
  - Logistic regression on probability of dying in 5-years
  - " on becoming disabled in 5-years

2-Year Probability of Dying – Men with Diabetes with/out Depressive Symptoms



2-Year Probability of Becoming Disabled – Men with Diabetes with/out Depressive Symptoms

B. Disability



LEGEND:

- ■ Depressive Symptoms with Diabetes
- □ Confidence Intervals
- ♦ No Depressive Symptoms with Diabetes
- ◊ Confidence Intervals

Odds Ratios on the 5-Year Probability of Dying

	Men	Women
Model 1. DS alone	1.170	1.309*
Model 2. DS with Cancer	1.147	1.319**
Model 3. DS with Diabetes	1.127	1.260
Model 4. DS with Heart Disease	1.121	1.233
Model 5. DS with Stroke	1.109	1.306*

Odds Ratios on the 5-Year Probability of Becoming Disabled

	Men	Women
Model 1. DS alone	2.216**	2.614***
Model 2. DS with Cancer	2.217**	2.587***
Model 3. DS with Diabetes	2.262*	2.596***
Model 4. DS with Heart Disease	2.188*	2.473***
Model 5. DS with Stroke	2.054**	2.590***

Summary of Results 5-Year Probabilities

Mortality:

- Men –
  - No DS Effect on Mortality, alone or with CC
- Women:
  - DS Effect increases Mortality by 31%.
  - Effect is unchanged by presence of Cancer or Stroke.
  - Effect is partially explained by Diabetes or HD

Disability:

- Men –
  - 121% increase in probability of disability due to DS;
  - Unchanged by presence of Cancer, HD or Stroke
  - DS effect increased by presence of Diabetes
- Women –
  - 161% increase in likelihood of disability due to DS;
  - Effect decreases only slightly in presence of any of the CCs

Total, Active, & Disabled LE for 70 yo Men: by DS status and CD status

	Total	Active	Disabled	% Active
No DS No CD	12.9	10.2	2.7	78.9
DS, No CD	**8.9**	**3.4**	5.6	37.7
DS + Cancer	**8.1**	**4.9**	3.2	60.8
DS + Diabetes	**6.5**	**2.7**	3.8	41.5
DS + Heart Disease	**7.9**	**2.0**	5.8	25.8
DS + Stroke	**6.6**	**0.8**	5.9	11.3

Yellow and Bold – $p < .05$ from NoDS,NoCD **Underlined** – $p < .05$ from DS, NoCD

Total, Active, & Disabled LE for 70 yo Women: by DS status and CD status

	Total	Active	Disabled	% Active
No DS No CD	15.8	10.6	5.3	66.8
DS, No CD	**12.6**	**6.3**	6.3	50.1
DS + Cancer	**10.7**	**5.7**	5.1	52.8
DS + Diabetes	**8.2**	**2.0**	6.2	24.6
DS + Heart Disease	**10.8**	**4.7**	6.1	43.3
DS + Stroke	**9.9**	**4.3**	5.7	43.2

Yellow and Bold – $p < .05$ from NoDS,NoCD **Underlined** – $p < .05$ from DS, NoCD

Summary of Results: Years of Life Lost, and Years Spent in Disability at age 70

Years of Life Lost:

- Men with DS live 4 fewer years than without DS
- Women with DS live 3.2 fewer years than without DS
  - Addition of Chronic Diseases further decreases TLE but not significantly

Years Lived in Disability:

- Men with DS live nearly 7 fewer active years comp. to Men without DS
- Women with DS live more than 4 fewer active years comp. to Women without DS
  - In men, only the addition of Stroke, and in women the addition of Diabetes, significantly further reduces ALE

Conclusions

- Depressive Symptoms do not appear to significantly alter mortality in 2-year probabilities,
- BUT: in both 5-year probability and in remaining Life Expectancy they decrease years remaining.
- In all cases, DS negatively affect the probability of becoming disabled

- The effects of Chronic Conditions – Cancer, Diabetes, HD, and Stroke – ***modify*** (in some cases multiply) DS effects but does not explain them away.

Where Do We Go From Here?

Urge physicians and other health care professionals not to disregard detection and treatment of Depressive Symptoms in older adults

Doing so is at the cost of both length and quality of their patients' remaining lives.