



Severity of Diabetes and Active Life Expectancy



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Acknowledgements



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Diabetes and Active Life Expectancy

 Jagger C., Goyder E., et al. (2003)

Clear that Type 2 Diabetes has negative effect on both Total and Active Life Expectancy, at all ages.

Question: does it differ by severity?

Design/Methods

- ✓ AHEAD data, 1993-1998
- ✓ Those respondents who answered “yes” to “do you have diabetes now?” n=981
- ✓ Multistate Lifetable analysis using IMaCh
- ✓ Diabetes treatment (swallowed medicine vs. insulin injection) and Gender as covariates

Trends between 1993 and 1998

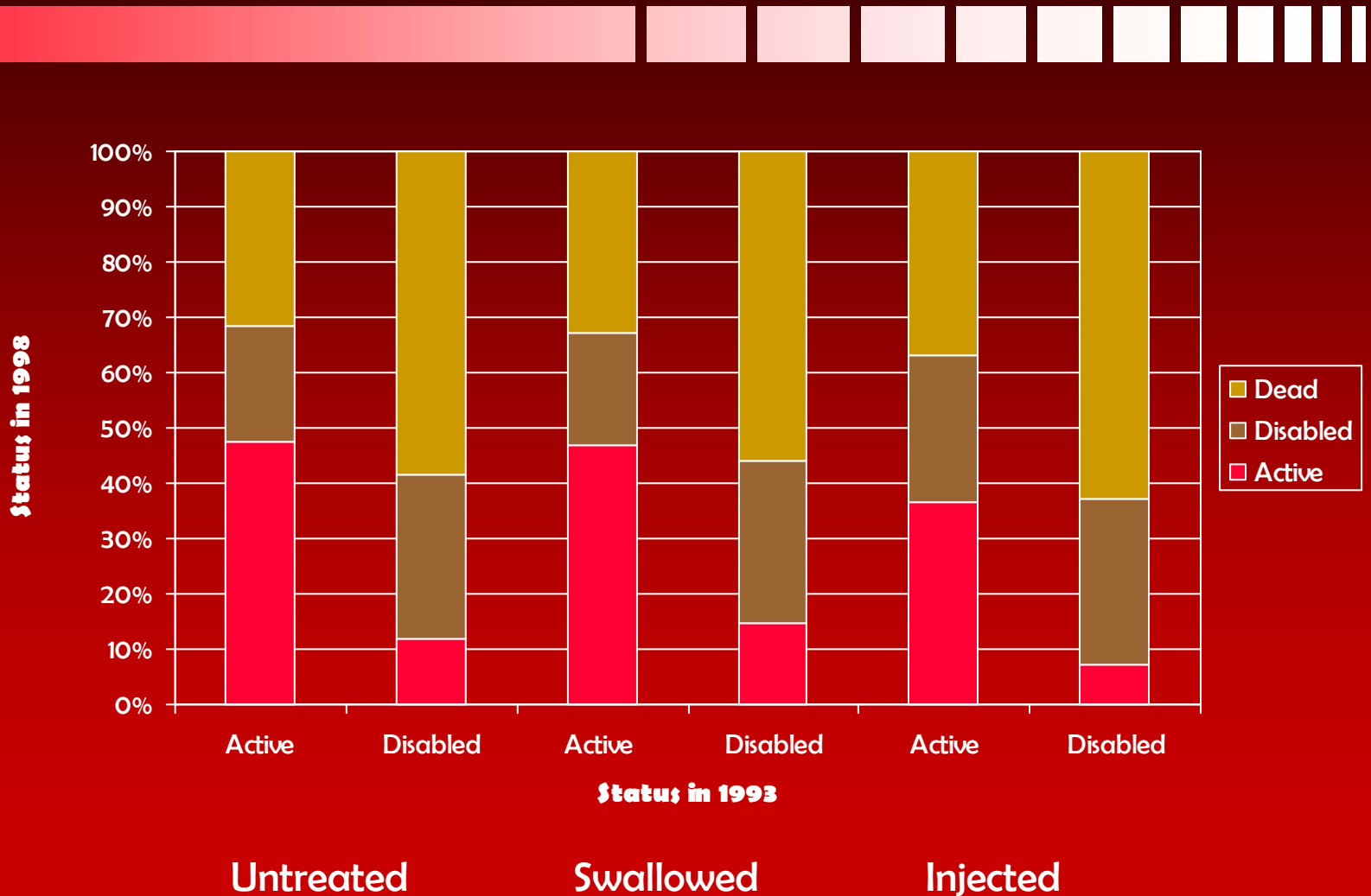


Figure 1a. Men – Active to Disabled

Swallow vs. Inject – significant to age 80

Figure 1a. Men - Active to Disabled

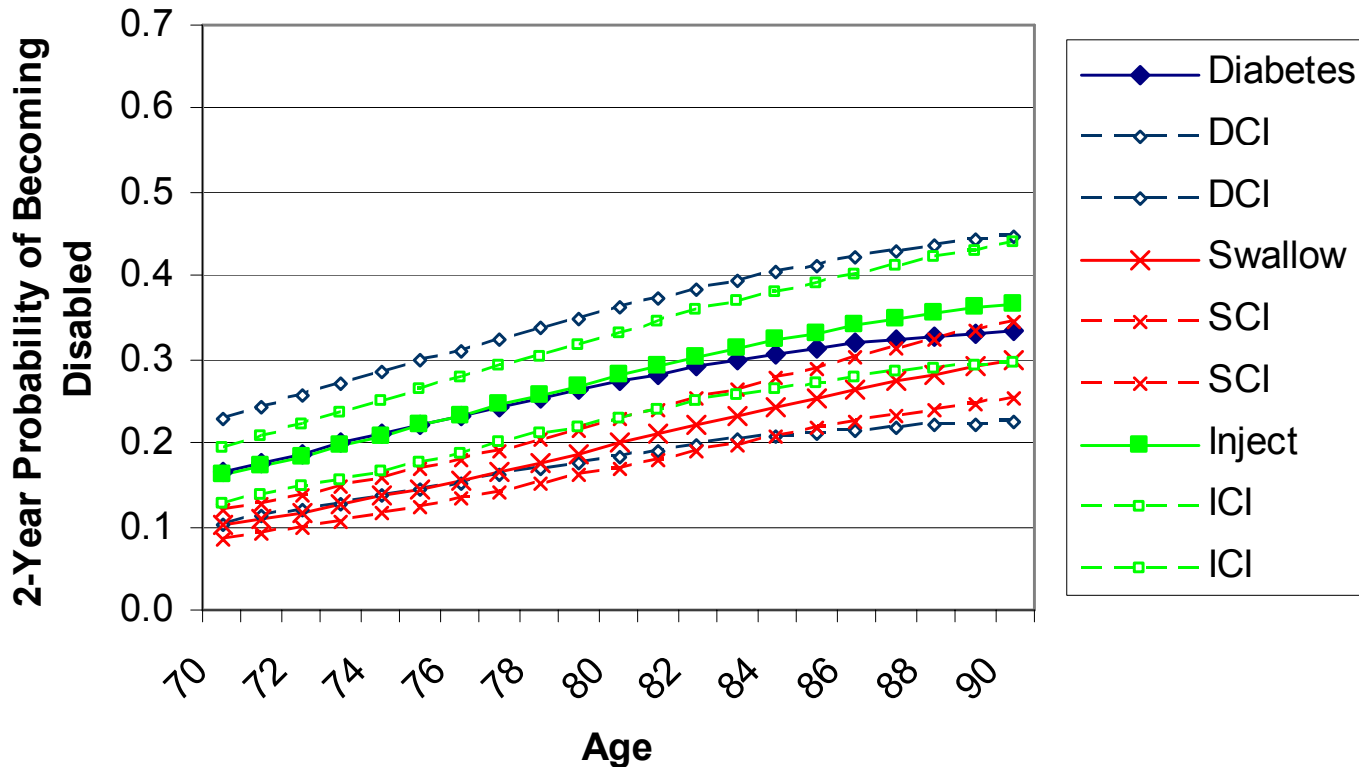
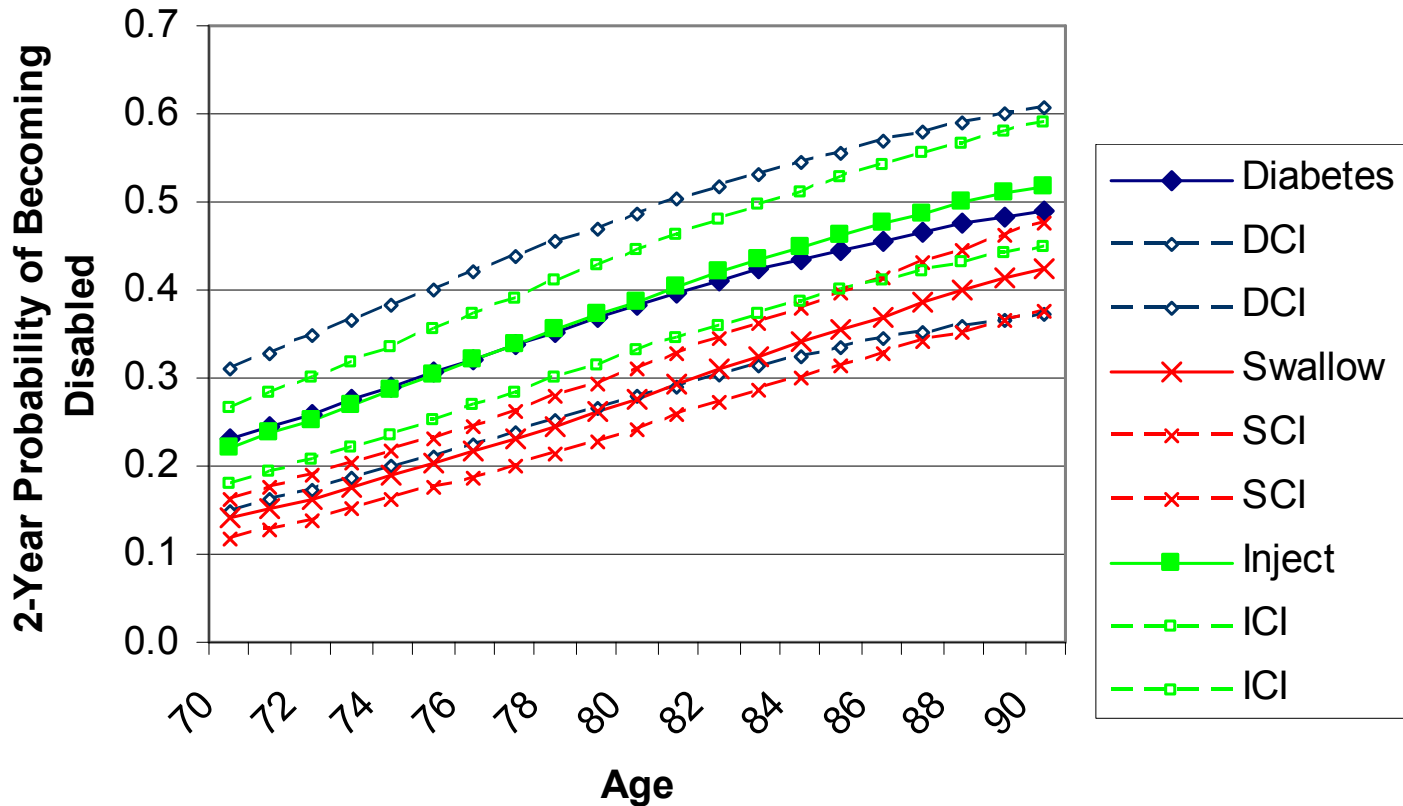


Figure 1b. Women -- Active to Disabled Swallow vs. Inject – significant to age 85

Figure 1a. Women -- Active to Disabled



Total Life Expectancy - Males



	Diabetes	90% CI	Swallow	90% CI	Inject	90% CI
70	7.1	5.7-8.5	9.4	8.7-10.1	7.6	6.8-8.4
75	5.4	4.3-6.5	7.1	6.6-7.7	5.4	4.8-6.0
80	3.9	3.2-4.6	4.9	4.6-5.3	3.9	3.5-4.3
85	3.3	2.7-4.0	3.2	2.9-3.5	3.0	2.7-3.3
90	2.7	2.2-3.3	2.8	2.6-3.1	2.9	2.6-3.3

Total Life Expectancy - Females



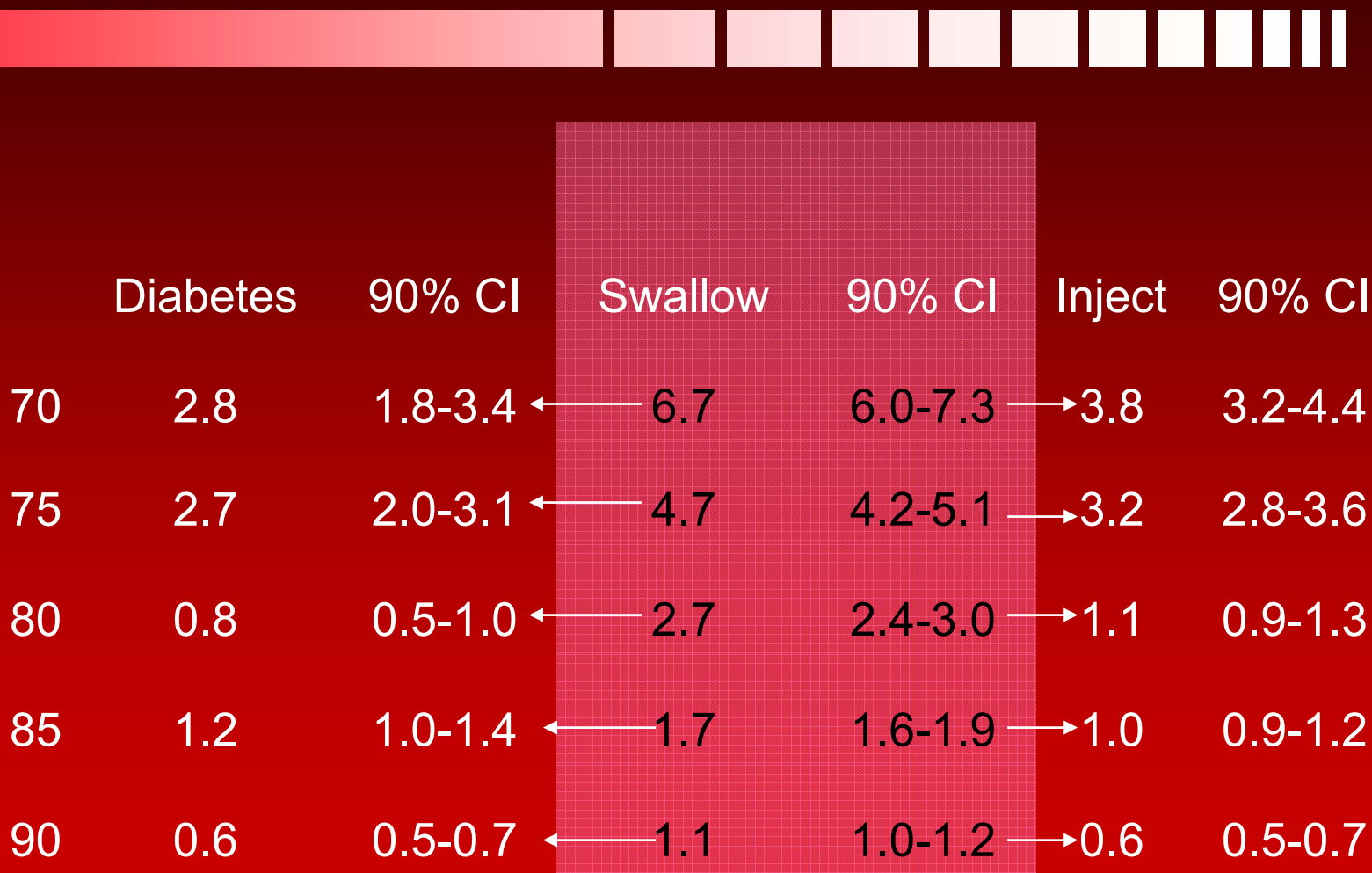
	Diabetes	90% CI	Swallow	90% CI	Inject	90% CI
70	8.5	6.9-10.2	11.4	10.6-12.2	9.5	8.5-10.6
75	7.0	5.8-8.3	8.8	8.1-9.4	7.7	6.9-8.5
80	5.0	3.8-6.1	6.4	5.9-6.9	5.4	4.7-6.1
85	4.3	3.5-5.1	4.8	4.4-5.3	4.4	3.8-4.9
90	3.3	2.6-4.0	3.7	3.3-4.0	3.4	3.0-3.9

Active Life Expectancy - Males



	Diabetes	90% CI	Swallow	90% CI	Inject	90% CI
70	4.8	3.7-6.0	7.0	6.4-7.6	5.0	4.4-5.7
75	3.4	2.6-4.2	5.0	4.6-5.5	2.9	2.5-3.3
80	1.9	1.5-2.4	3.0	2.7-3.2	1.6	1.4-1.8
85	1.9	1.6-2.3	1.2	1.1-1.3	1.0	0.9-1.1
90	1.5	1.3-1.8	1.3	1.2-1.4	1.6	1.5-1.7


Active Life Expectancy - Females



Summary of Results

2-year transitions –

-  No differences in mortality

-  No differences between the Untreated group in disability, but those who Inject insulin are more likely to become disabled up to ages 80 (men) and 85 (women)

Summary of Results

✔ Total and Active Life Expectancy Estimates

✔ TLE –

- ✔ Men: TLE is significantly longer for those who swallow meds up to age 80
- ✔ Women only at age 70

✔ ALE –

- ✔ Men: ALE is significantly longer for those who swallow meds over those who inject at all ages
- ✔ And longer over those who are untreated up to 80
- ✔ Women: ALE is significantly longer for those who swallow meds over both the untreated and those who inject meds at all age.

Caveats and Conclusions



- 👉 Small numbers make 90% CI's necessary
- 👉 Self-report of meds taken
- 👉 Assumption that those who have Diabetes and do not report meds are, indeed, untreated
- 👉 Does appear to be a difference in both Total and Active Life Expectancy by both Treatment Mode (severity) and presence/absence of Treatment

Further pursuits

- 👉 Obesity and Diabetes – another potentially lethal and disabling combination
- 👉 Other data sets – possibly MacArthur – give us better measures of Diabetes and its severity