

Depression and diabetes: detection, barriers and interventions

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GREATER HEALTH

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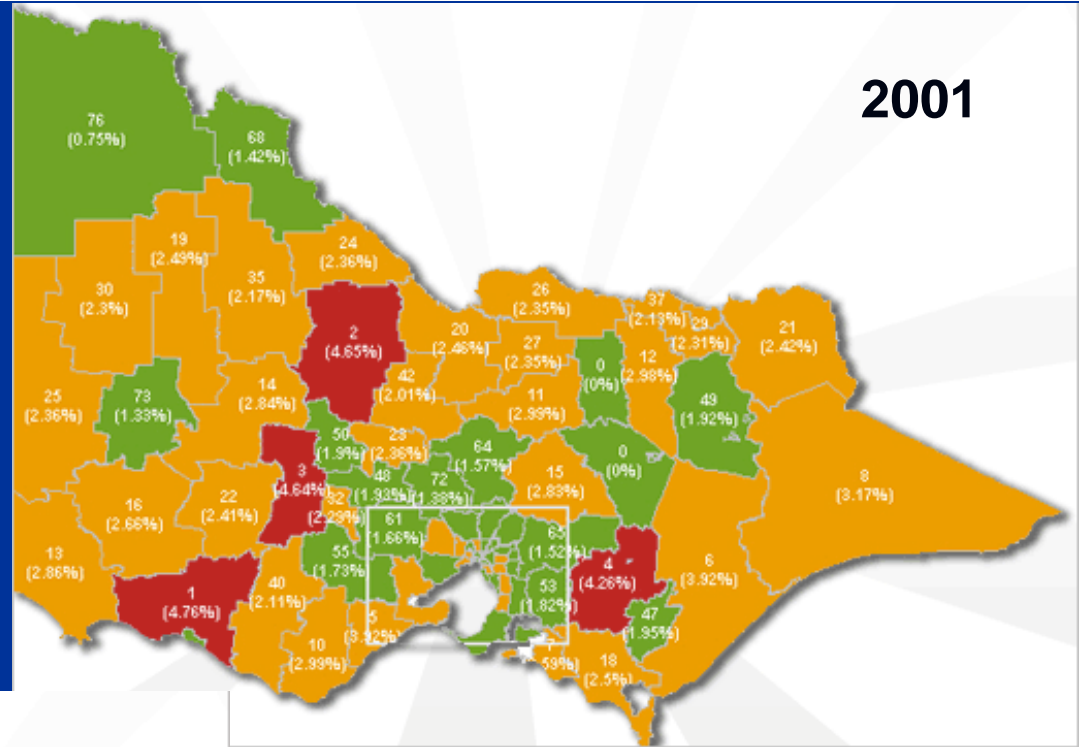
Prevalence of diabetes in Australia



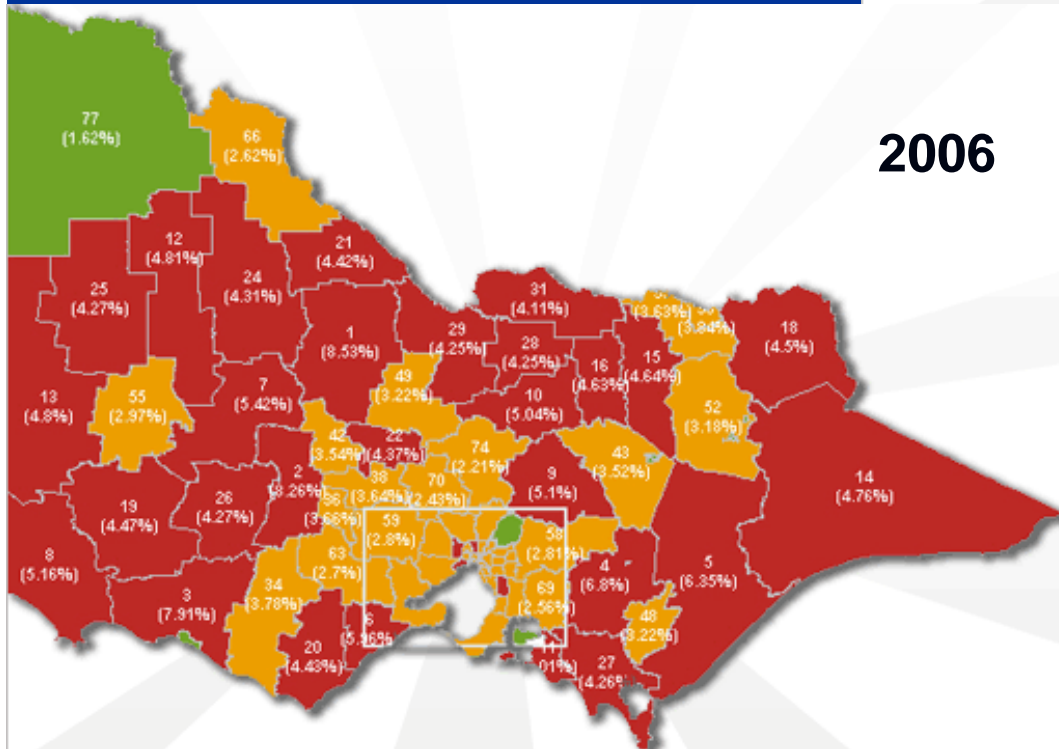
- 3.6% of Australians had diagnosed diabetes (NHS 2004-05)
- Majority (83%) of people with diabetes had type 2 diabetes
- 4.9% of Victorian adults over 18 years had diagnosed diabetes (VPHS 2006)

Prevalence of diabetes in Victorian Local Government Areas

2001



2006



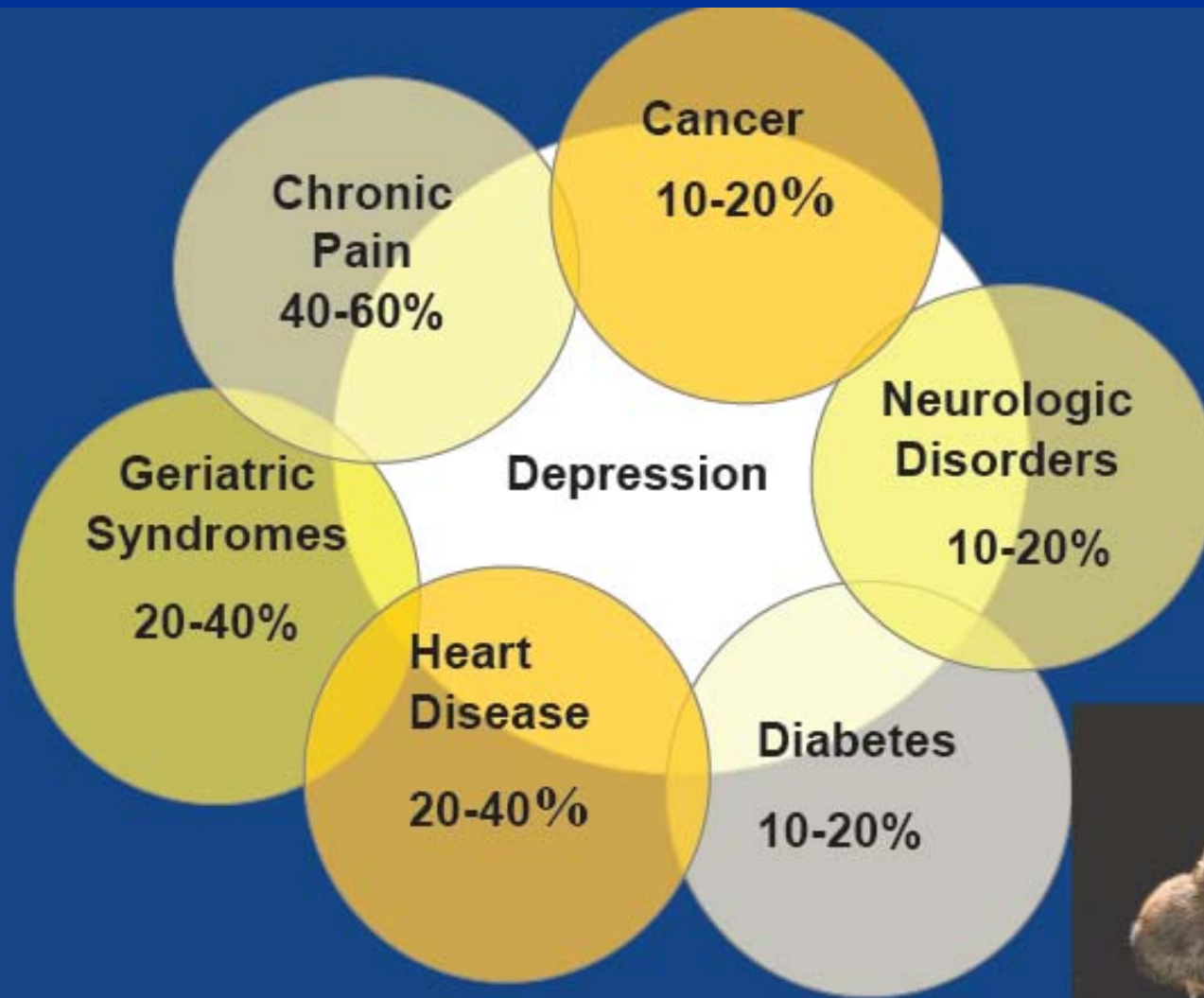
- 0-2% people with diabetes
- 2-4% people with diabetes
- 4-10% people with diabetes

From Diabetes Australia Victoria, 2006

Depression

- Mood disorders rank among the top 10 causes of worldwide disability
- By the year 2020, major depression will be the second highest cause of illness and disability in both men and women
- Depression is more common in primary care than any other condition except hypertension

Depression in chronic disease



Relationship between depression and chronic disease

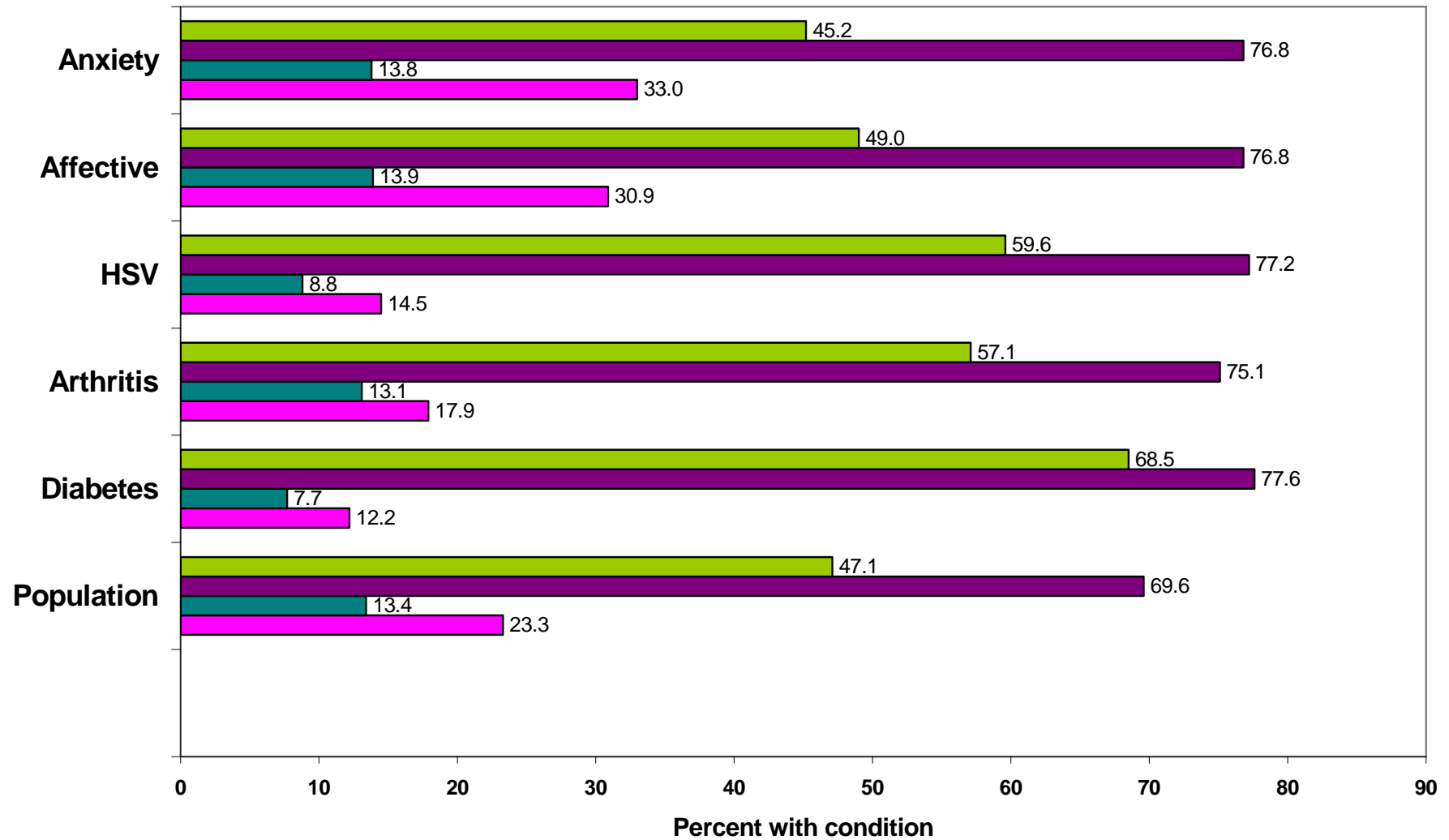
- Antecedent model
- Consequences model
- Shared determinants model

Predictors of mortality among people with type 2 diabetes

Hazard Ratio, (* $p < .05$, ** $p < .01$), Variable

1.79**	Two or more diabetes complications
1.59**	Any insulin use
1.46*	<u>Minor depression</u>
1.45	Current smoker
1.43*	<u>Major depression</u>
1.40**	Sedentary lifestyle
1.16	HbA1c $\geq 8\%$
1.08**	Older age
1.07**	Non-diabetes related medical comorbidity
0.89	BMI $> 30\text{kg/m}^2$

Long term conditions and risk behaviours, Australia



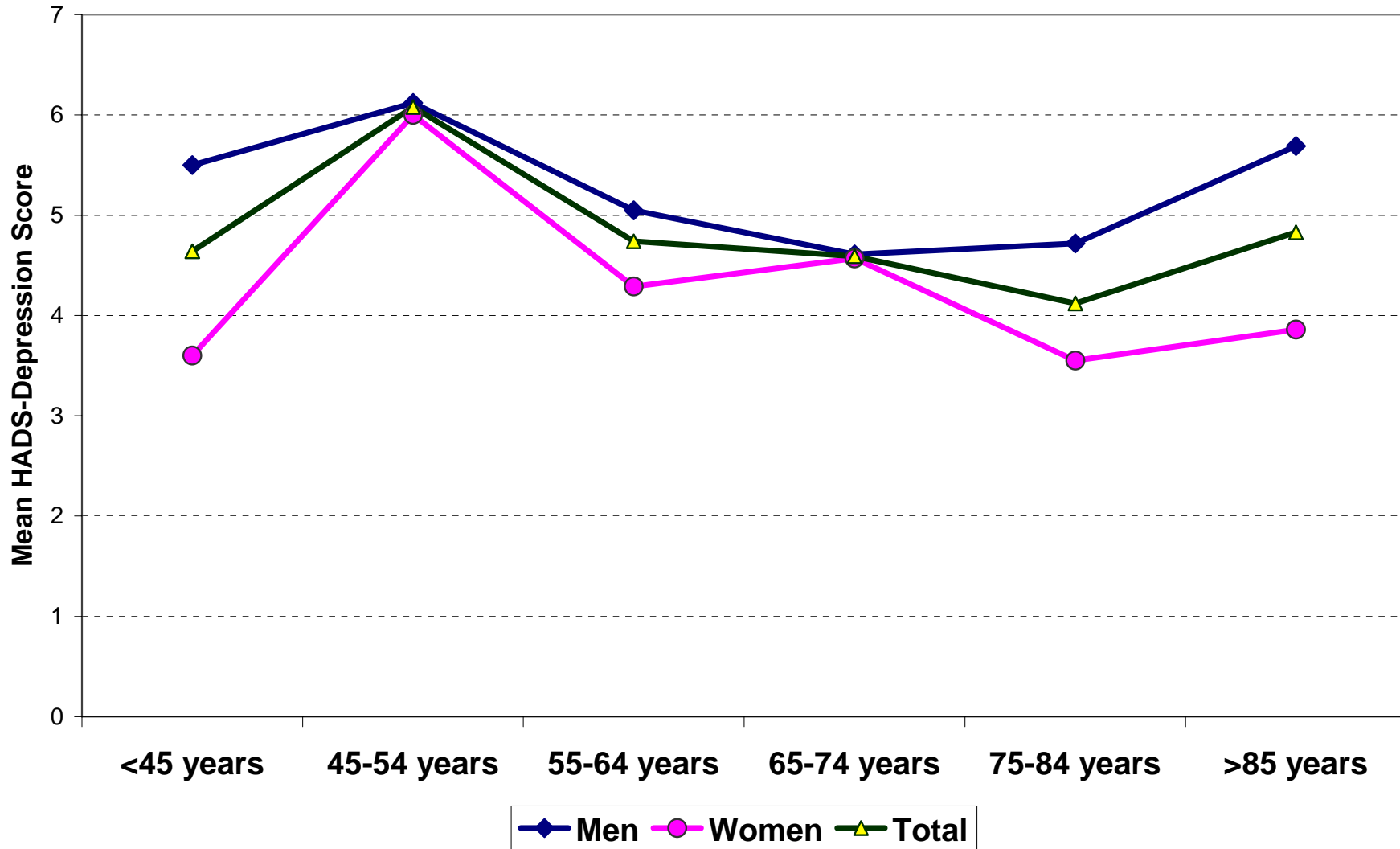
■ Current smoker
 ■ Risky/high alcohol risk
 ■ Sedentary/low exercise
 ■ Overweight/obese BMI

ABS National Health Survey 2004-2005

Depression in a clinical sample: patients with type 2 diabetes

- N = 561 patients in 7 primary care medical practices in Victoria (309 men, 252 women); age 33 to 90 years
- Language: 95.7% English-speaking
- Education: 31.0% completed high school +
- Employment: 24.8% employed
- Marital: 62.7% married
- Health card: 77.5% had health concession card
- Depression (non-standardised %)
 - HADS-D (12.0% mild, 9.2% moderate-severe)
 - PHQ9 (12.2% minor, 11.4% major)

Depression scores by gender and age, n = 561 type 2 diabetes in primary care medical practices



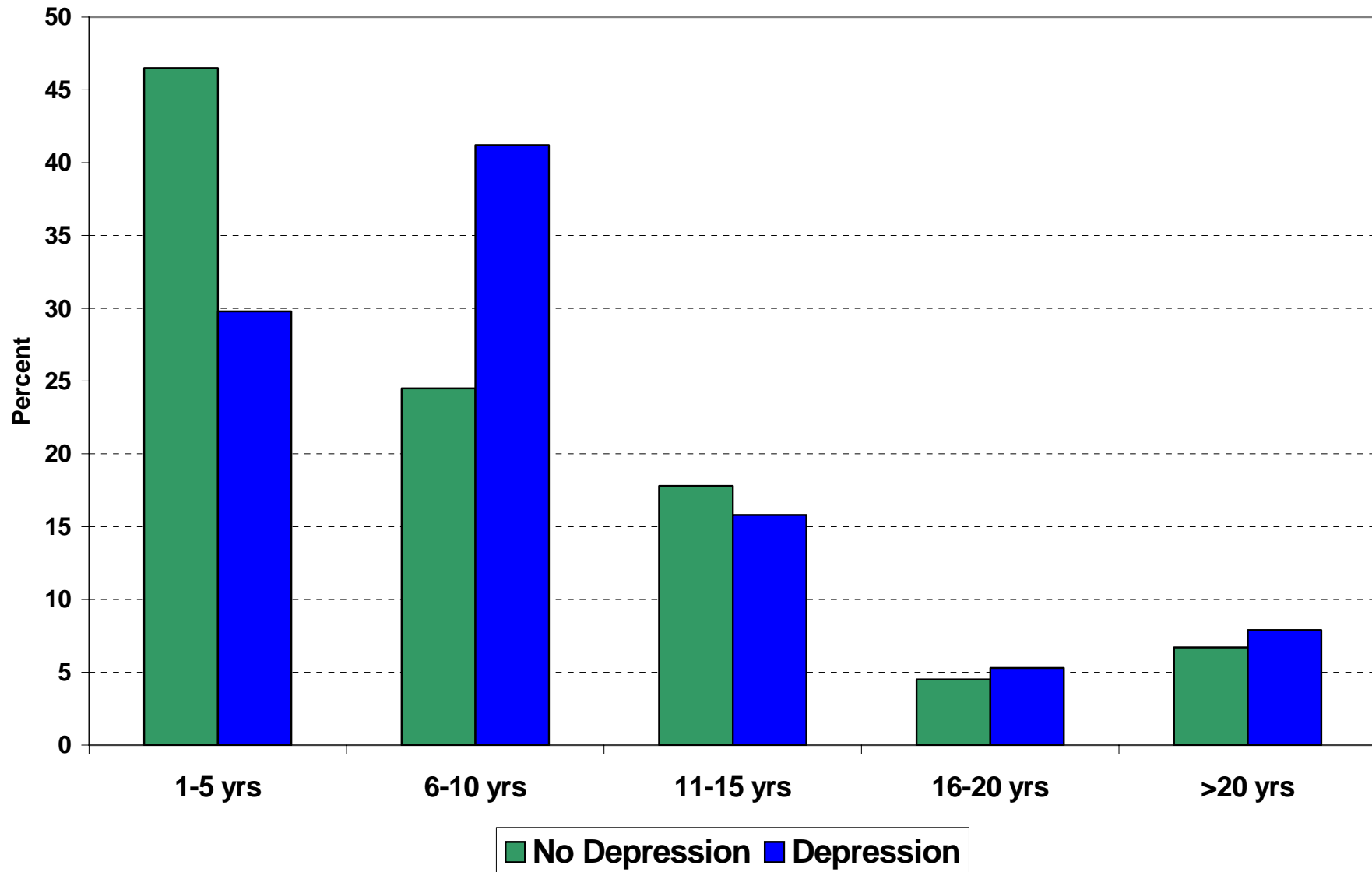
Characteristics of people with type 2 diabetes and depression vs no depression

Depression is related to:

- Longer duration of diabetes (> 5 years)
- Earlier onset of diabetes (< 45 years)
- Greater number of diabetes complications (3+)
 - Heart-related, Feet circulation, Neuropathy
- Less use of exercise and greater use of medication and insulin to manage diabetes
- Previous history of depression, recent episode of depression (< 1 year), current antidepressant medication
- Current smoking, less physical activity, being overweight or obese (BMI > 30 kg/m²)
- Less perceived support for management of diabetes

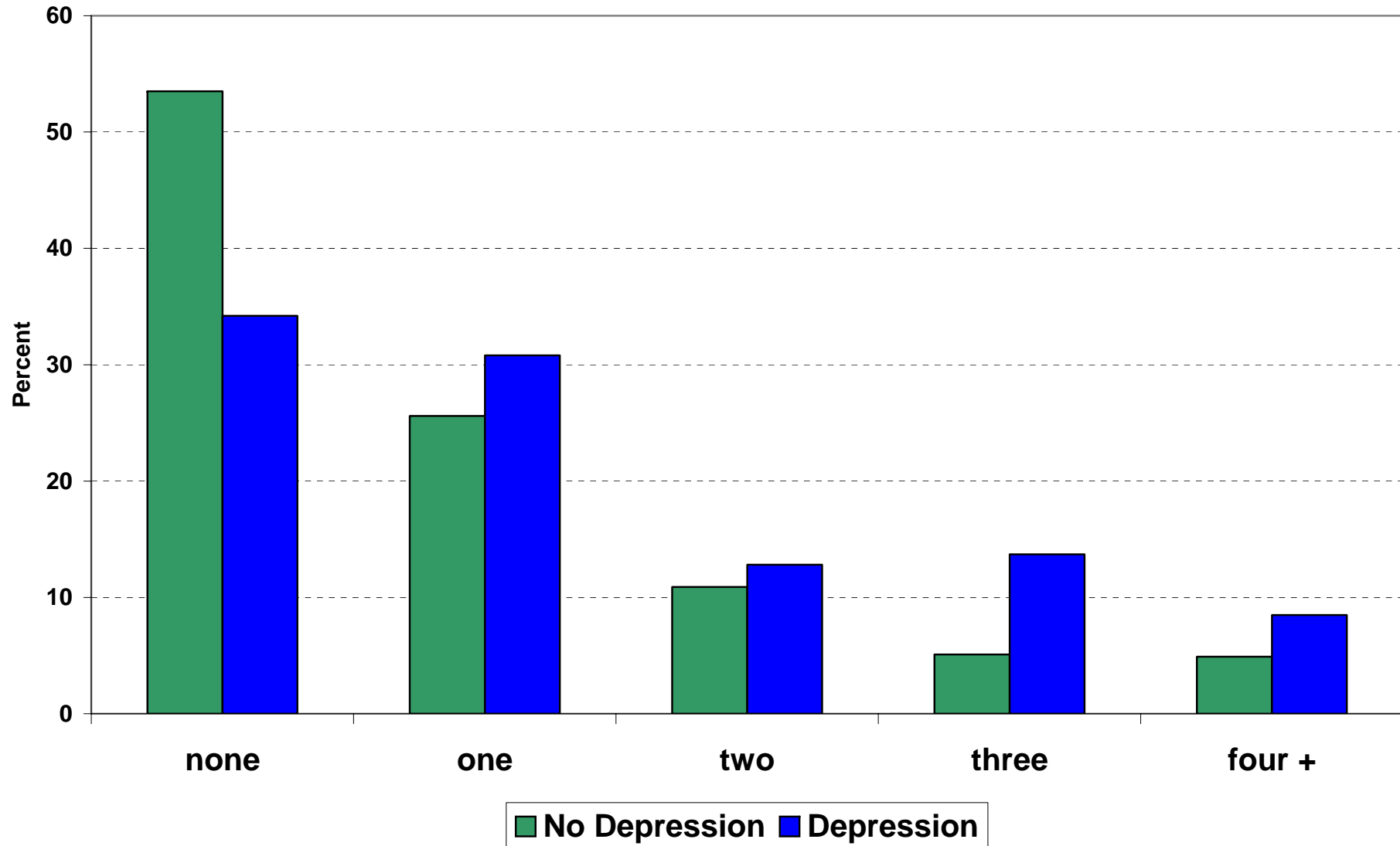
All Chi-square values p<.05

Duration of type 2 diabetes, n = 561



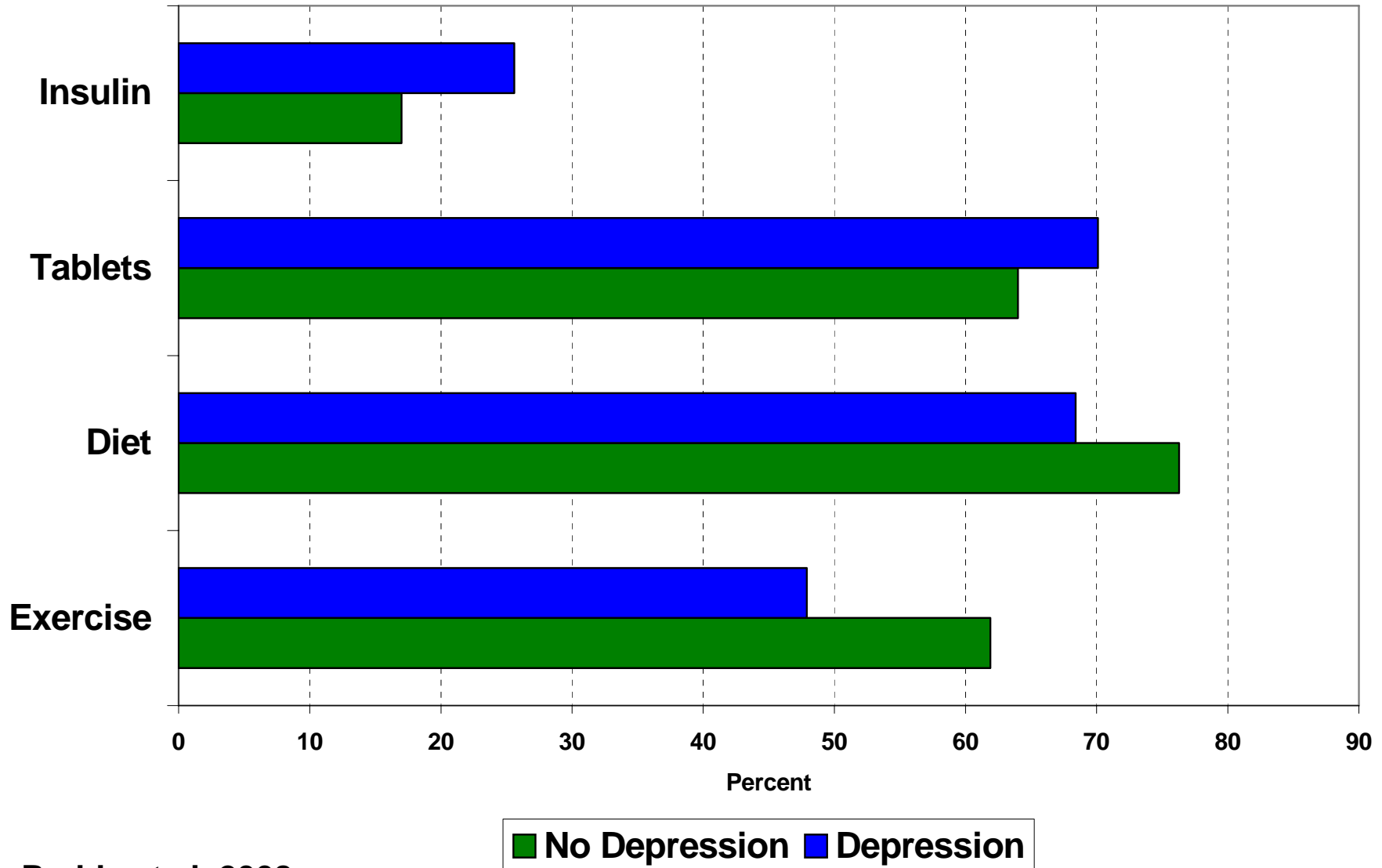
Reddy et al. 2008

Number of diabetes complications, n = 561



Reddy et al. 2008

Management of type 2 diabetes, n = 561



Reddy et al. 2008

Chronic Disease Management

What doesn't work:

- Education not effective on its own
- Guidelines not effective on their own
- Screening not effective unless linked to follow-up
- Feedback no benefit on its own

Institute for Healthcare Improvement: Breakthrough Series Reviews,
Cochrane EPOC study

Chronic Disease Management

What does work:

- Guideline +
- Patient registry
- Care co-ordination
- Proactive follow-up
- Diagnostic assessment
- Measurement of outcomes

Sustainability

- Diffusion of innovation
- Training more practice staff in depression management
- The economic case = self funded
- Incorporation of depression screening instruments into everyday practice
- Improving management of risk factors for co-morbid conditions
- Addressing barriers to effective care:
 - Patient factors
 - Health professional factors
 - Health system factors

Patient vs practitioner/system barriers

Patient level barriers

- Reluctance to disclose depression (stigma)
- Belief that depression is a natural part of ageing
- Lack of support from family and carers
- Decision not to seek help for depression
- Belief that depression is a natural part of having diabetes

N = 149 health professionals working with T2DM patients

- *Reddy, Dunbar, Buttigieg, 2007*

Practitioner/system level barriers

- Lack of time to talk to patients about depression
- Lack of office resources to conduct screening
- Lack of referral pathways for people with depression
- Rural and remote isolation for professional help
- Communication issues between practitioners
- Cost of psychotherapy
- Lack of information about screening tools
- Lack of training in the management of mental health problems

CONCLUSION I

1. Future research on depression in high risk and patient groups should include validated measures of depression that are comparable with international studies.
2. Risk factors for diabetes, including depression, should be approached as a **public health issue**, and health promotion efforts should be targeted and continued.
3. Screening and interventions in those at high risk of type 2 diabetes should become standard practice. These interventions should target lifestyle changes, particularly proper diet, adequate exercise, and stress management.

CONCLUSION II

4. Effective prevention programs for diabetes and associated risk factors must become standard clinical practice.
5. Effective treatment programs for diabetes and depression must become **standard clinical practice**. Screening for depression in patients with diabetes should be included in guidelines for management of diabetes.
6. Clinical education programs for mental health professionals should include information on depression as a risk factor for diabetes.