



Musculoskeletal Conditions

Arthritis

Stage 2

Epidemiological Series Report # 2007-09

April 2007

Introduction

The following overview presents the prevalence of arthritis among the participants of the North West Adelaide Health Study, and the demographic and risk factors associated with arthritis. Stage 1 (baseline examination) of the study was conducted between 2000 and 2003, and Stage 2 (second examination) was conducted from 2004 to 2006.

Measurement of arthritis

The prevalence of arthritis was determined using data obtained from the self report telephone questionnaire at Stage 2 of the study. Participants were asked if they had osteoarthritis, rheumatoid arthritis, another form of arthritis, or if they did not know the type of arthritis they had.

Prevalence of arthritis – Stage 2

The prevalence of all forms of arthritis is shown in Table 1. Overall, in Stage 2, **21.4%** (95% CI 20.1-22.8) of study participants had arthritis.

Table 1: Prevalence of arthritis

	Stage 2	
	n	%
No arthritis	2734	78.6
Arthritis	744	21.4
Total	3478	100.0

Note: (Stage 2) 24 participants did not provide a response to questions and were excluded.

Prevalence of types of arthritis

The prevalence of each type of arthritis is shown in Table 2. Overall, 7.5% (95% CI 6.6-8.4) of participants reported that they had osteoarthritis and 2.9% (95% CI 2.4-3.5) of participants reported that they had rheumatoid arthritis. In addition, 10.8% (95% CI 9.8-11.8) of respondents did not know the type of arthritis that they had. Other types of arthritis included: Ankylosing spondylitis, Fibromyalgia, Gout, Keinbock's disease, Systemic lupus erythematosus, Polyarthritis, Pseudo gout, Psoriatic arthritis, Reactive arthritis (Reiters syndrome), Seronegative arthritis and Sjögrens syndrome.

Table 2: Prevalence of types of arthritis*

	Stage 2	
	n	%
Osteoarthritis	261	7.5
Rheumatoid arthritis	101	2.9
Other type of arthritis	18	0.5
Don't know what type	377	10.8

*Multiple responses possible

The prevalence of arthritis in Stage 2 was 21.4%.

The prevalence of osteoarthritis was 7.5% and the prevalence of rheumatoid arthritis was 2.9% in Stage 2.

Demographic profile of respondents with arthritis

The prevalence of arthritis was statistically significantly higher among females, in the older age groups, adults living alone, with other adults or in a step or sole parenting arrangement, separated, divorced, or widowed or those unemployed, undertaking home duties, retired or a student. Respondents with a higher than secondary level of education, earning above \$20,000 or never married were significantly less likely to have arthritis (Table 3).

Table 3: Univariate Odds Ratios for demographic variables associated with arthritis

Variable	n	%	OR	(95% CI)	p value
Sex					
Male	306/1703	18.0	1.00		
Female	437/1775	24.6	1.49	(1.27-1.76)	<0.001
Age group					
20 to 24 years	7/295	2.5	1.00		
25 to 34 years	33/700	4.8	1.98	(0.88-4.47)	0.10
35 to 44 years	53/708	7.5	3.21	(1.46-7.05)	0.004
45 to 54 years	123/616	20.0	9.90	(4.62-21.21)	<0.001
55 to 64 years	176/470	37.4	23.58	(11.03-50.38)	<0.001
65 to 74 years	178/349	50.9	40.97	(19.06-88.08)	<0.001
75 years and over	173/340	51.0	41.08	(19.09-88.37)	<0.001
Highest education level obtained*					
Secondary	410/1409	29.1	1.00		
Trade/apprenticeship/cert/diploma	202/1173	17.2	0.51	(0.42-0.61)	<0.001
Bachelor degree or higher	42/556	7.5	0.20	(0.14-0.28)	<0.001
Gross annual household income*					
Up to \$20,000	229/584	39.1	1.00		
\$20,001- 40,000	197/725	27.3	0.58	(0.46-0.74)	<0.001
\$40,001- 60,000	98/688	14.2	0.26	(0.20-0.34)	<0.001
More than \$60,000	93/1063	8.8	0.15	(0.11-0.20)	<0.001
Family structure*					
Family & children, 2 biol/adop parents	119/1195	10.0	1.00		
Adult living with partner, no children	265/866	30.6	3.98	(3.14-5.06)	<0.001
Adult living alone	149/409	36.5	5.19	(3.94-6.85)	<0.001
Adults – reltd/unreltd, living together	74/330	22.6	2.64	(1.92-3.63)	<0.001
Step/sole/shared parenting & other	51/340	14.9	1.59	(1.12-2.62)	0.01
Marital status*					
Married or living with partner	432/2146	20.1	1.00		
Separated/divorced	77/268	28.7	1.60	(1.20-2.13)	0.001
Widowed	103/196	52.7	4.43	(3.28-5.98)	<0.001
Never married	53/565	9.4	0.41	(0.30-0.56)	<0.001
Work status*					
Full time employed	157/1461	10.7	1.00		
Part time/casual employed	66/538	12.4	1.17	(0.86-1.59)	0.31
Unemployed	16/75	21.0	2.22	(1.24-3.95)	0.007
Home duties/retired	396/947	41.8	5.98	(4.85-7.38)	<0.001
Student/other	28/150	18.8	1.93	(1.24-3.00)	0.004

*Not stated category not reported

Those with arthritis were more likely to be:

- female;
- those in the older age groups;
- adults alone or together or step or sole parenting arrangement;
- separated or divorced or widowed;
- unemployed, undertaking home duties, retired, or a student.

Risk factor profile of arthritis

Arthritis was statistically significantly more likely among those who were ex smokers, those who were overweight or obese, had a high waist hip ratio or waist circumference than in those without these risk factors. Arthritis was statistically significantly less likely in those who were current smokers or undertook exercise (Table 4).

Table 4: Univariate Odds Ratios for risk factor variables associated with arthritis

Variable	n	%	OR	(95% CI)	p value
Smoking					
Non-smoker	307/1460	21.0	1.00		
Ex-smoker	271/1081	25.1	1.26	(1.04-1.52)	0.02
Current smoker	89/639	14.0	0.61	(0.47-0.79)	<0.001
Physical activity					
Sedentary	207/836	24.8	1.00		
Undertakes exercise	401/2062	19.5	0.74	(0.61-0.89)	0.002
BMI					
Underweight/Normal (<25.0)	161/1039	15.5	1.00		
Overweight (25.0 to 29.9)	246/1176	20.9	1.44	(1.16-1.79)	0.001
Obese (30 and over)	248/928	26.7	1.99	(1.59-2.48)	<0.001
Waist/hip ratio (>1.0 men, >0.85 women)					
Normal	396/2395	16.6	1.00		
High	256/720	35.5	2.77	(2.30-3.34)	<0.001
Waist Circumference(>95cm men, >80cm women)					
Normal	119/1121	10.7	1.00		
High	533/1995	26.7	3.06	(2.47-3.79)	<0.001

Quality of Life profile of arthritis

Figure 1 shows the mean scores of the SF-36 subscales for those with and without arthritis. People with arthritis scored statistically significantly lower on all dimensions of the SF-36 when compared with those who did not have arthritis.

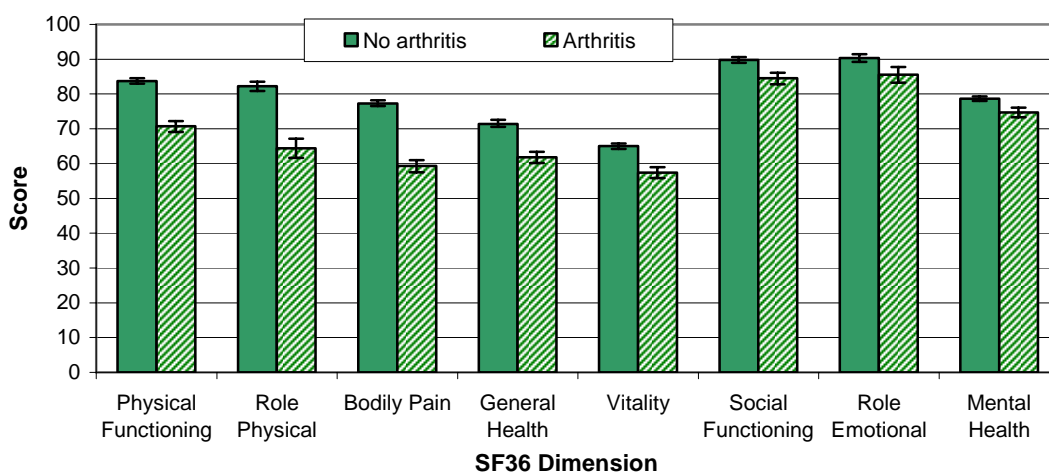


Figure 1: SF-36 mean scores for participants with and without arthritis

This document is one of a series of reports from Stage 2 of the North West Adelaide Health Study. Please see website for other reports in the series - www.health.sa.gov.au/pros/

CONTACT DETAILS:

Population Research & Outcome Studies Unit – South Australian Department of Health
 PO Box 287 Rundle Mall Level 8 CitiCentre, 11 Hindmarsh Square, Adelaide SA 5000
 Telephone (08) 8226 7042 Facsimile (08) 8226 6244 Email: pros@health.sa.gov.au

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Arthritis was statistically significantly more likely among those who were ex smokers, overweight or obese, had a high waist hip ratio or waist circumference.

People with arthritis have significantly lower quality of life scores for all dimensions of the SF-36.