Supporting Employees Dealing with Chronic Diseases: Emerging Issues Among Workers with Arthritis

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ACREU

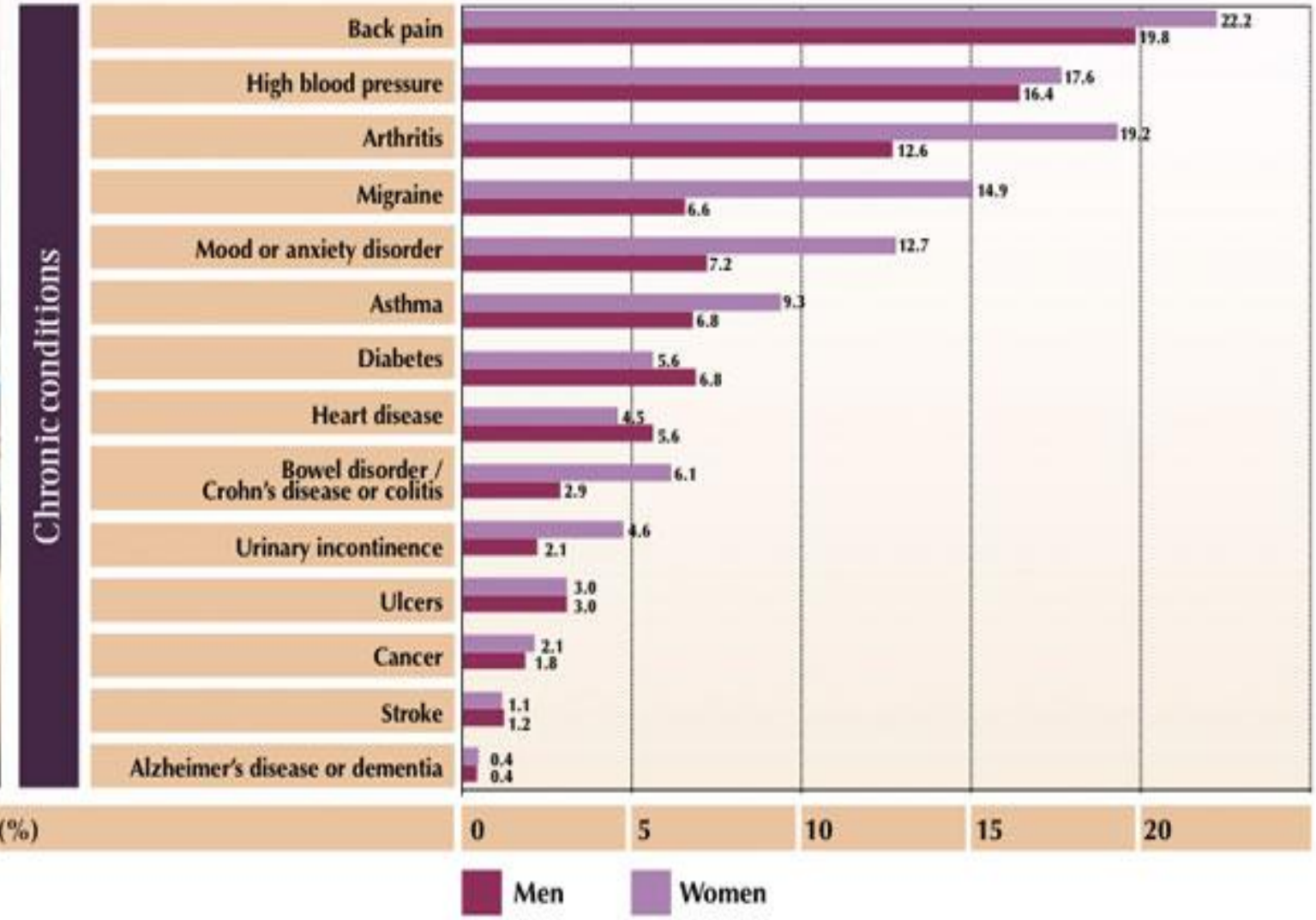
Arthritis Community Research & Evaluation Unit

Work→Health

Health→Work

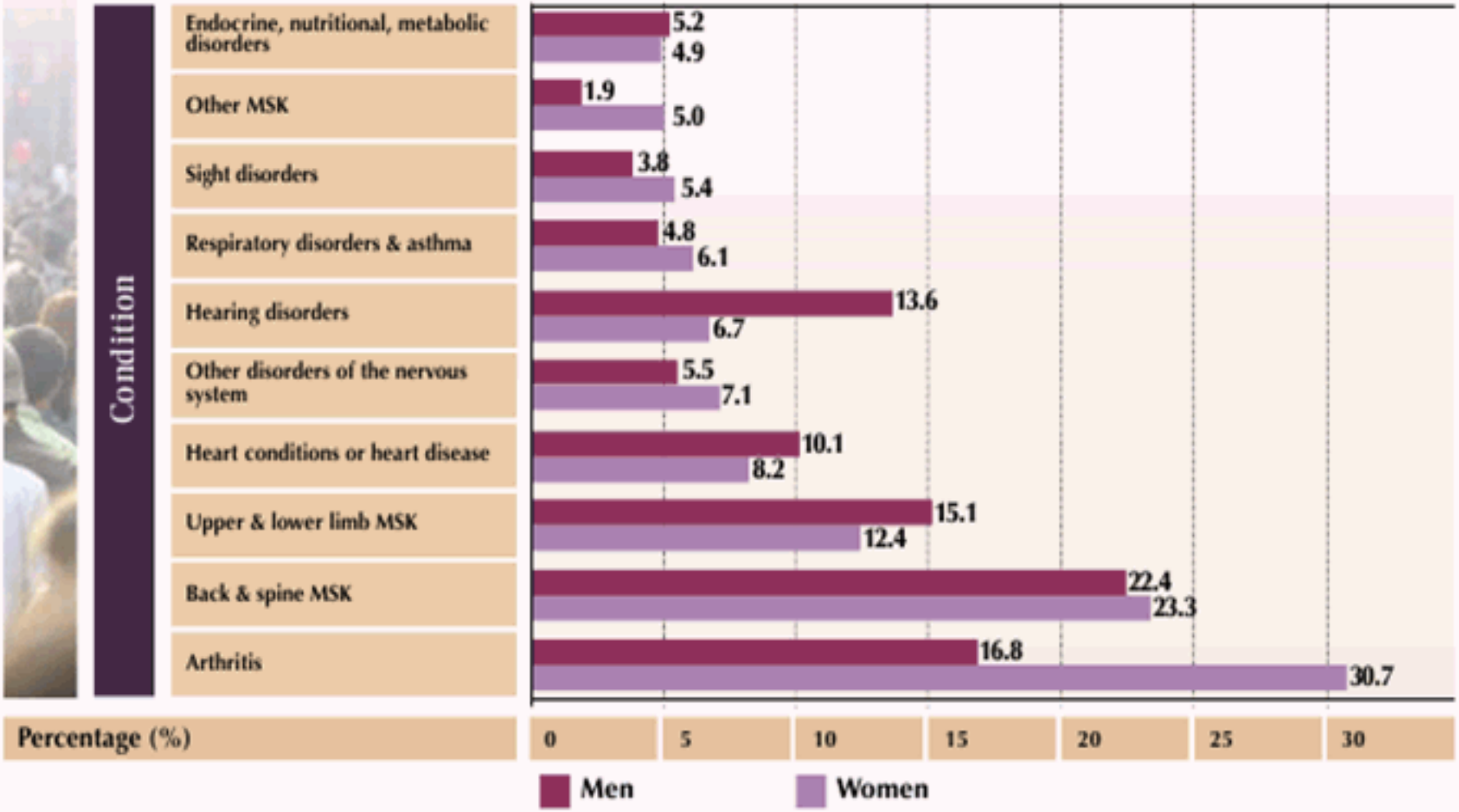
Work ↔ Health

Self-reported prevalence of specific chronic conditions by sex, household population aged 15 years and older, Canada 2007-2008



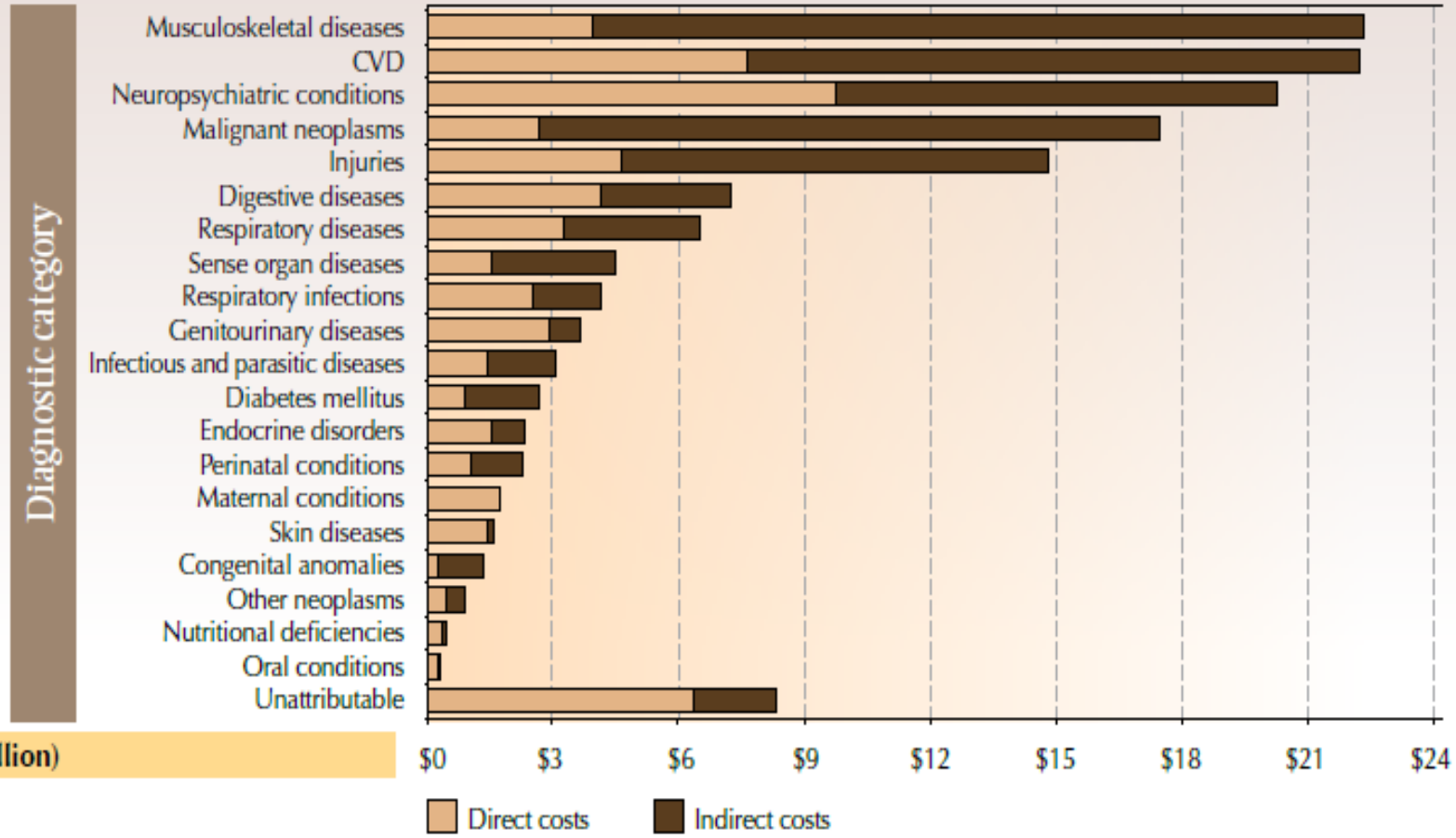
♦ Source: Public Health Agency of Canada, using Canadian Community Health Survey, 2007-2008, Statistics Canada.

Top ten causes of disability among men and women aged 15 years and over, Canada, 2001



♦ Source: Arthritis Community Research and Evaluation Unit, using data from the Participation and Activity Limitation Survey 2001, Public Use File, Statistics Canada. ♦ MSK = musculoskeletal diseases.

Figure 1-4 *Costs due to disease* for the leading 20 diagnostic categories, by direct†, and indirect costs‡, Canada, 2000*



♦ * Based on the total cost of illness of $147.9 billion. Expenditures for care in other institutions and additional direct health expenditures are not included. ♦ † Direct costs include hospitals, drugs and physician. ♦ ‡ Indirect costs include mortality, long-term disability and short-term disability. ♦ Notes: - Not all diagnostic categories include short-term disability costs. - The six diagnostic categories that include short-term disability costs are CVD, musculoskeletal diseases, neuropsychiatric conditions, digestive diseases, respiratory diseases and respiratory infections. - Costs by diagnostic category include an unattributable amount of $6.4 billion for direct costs and $1.9 billion for indirect costs (short-term disability only). - Costs by disgnostic category related to suppressed cells for long-term disability are excluded from the total indirect costs. ♦ Source: Public Health Agency of Canada, using data from the Economic Burden of Illness in Canada 2000.

Economic Burden of arthritis by cost components, Canada 2000 (2008) dollars

Type of Cost	Component	Arthritis Costs ($ million)
Direct costs	Hospital Care	$987.3 ($1,185.8)
	Drug	$524.6 ($630.1)
	Physician	$589.4 ($707.9)
	Total direct	**$2,101.3 ($2,523.8)**
Indirect costs	Mortality	$177.9 ($213.6)
	Long-term disability	$4,136.8 ($4,968.5)
	Short-term disability	n/a
	Total Indirect	**$4,314.7 ($5,182.1)**
Total costs		**$6,415.9 ($7,705.9)**

Source: Public Health Agency of Canada, Economic Burden of Illness in Canada 2000 custom tabulations

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Indirect Costs

- Premature mortality
- Long-term disability
- Short-term disability
- Absenteeism
- Lost productivity
- Underemployment
- Retention & retraining costs

Why Isn't Living with Arthritis Stressful?

- It's not usually life threatening
- You have good days and bad days (focus on the good)
- No one knows you have it – it's invisible

Why is Living with Arthritis Stressful?

It's not usually life threatening…

But, there's no cure. You live with pain and disability for the rest of your life

- 3 of 5 Canadians with arthritis are under age 65 years
- 25% of those with arthritis aged 25-44 years are not working.
- ~ 50% of those with arthritis disability are not working (PHAC, 2010; Badley & Wang, 2001; Chorus et al, 2000; Kaptein, Gignac, & Badley, 2009; Lacaille et al., 2004)

You have good days & bad days (episodic disability)…

But, your work life is unpredictable (i.e., you can't predict how you'll feel)

* Will I be able to do a good job?
* Can I keep up with this pace of work?
* Should I apply for a promotion?
* Can I travel to meetings?

It’s invisible – no one knows you have arthritis…

Potentially stressful decision-making:

* Should I tell my employer and co- workers I have arthritis?
* When?
* Will this create problems with others at work?
* Will I lose my job or promotion opportunities?

It's invisible – no one knows you have arthritis…

- Pain, stiffness, and fatigue can affect daily tasks, activities, and mobility
- Symptoms can impact energy and concentration
- Pain and fatigue can make individuals moody
- If no one knows an individual has arthritis, there is the potential for misunderstandings (e.g., perceived malingering)

Episodic health conditions are common

(e.g., arthritis, migraine, mental health conditions, low back pain, lupus, multiple sclerosis)

Episodic Health Conditions

- Is intermittent disability an early warning signal for later problems?
- Does it relate to negative work or psychological outcomes?
- Are there implications for measurement of productivity and costs?

Arthritis & Employment Study

- Followed individuals for 4½ years; data collected at 4 time points
- Face-to-face interviews every 18 months
- Inflammatory arthritis (e.g., rheumatoid arthritis) or osteoarthritis (OA)
- 490 participants at time 1; all were employed
- 71% of the sample remained in the study at all time points

Table 1. Sample characteristics (n=490)

Demographic Variables	N (%)
Gender	
Male	109 (22.2)
Female	381 (77.8)
Age, mean ± SD years	51.1 (9.3)
Education	
Elementary & Secondary Education	85 (17.4)
Some Post Secondary Education	112 (23)
Post Secondary Education	196 (40.2)
Post Graduate Education	95 (19.5)
Marital Status	
Married/Living as Married	297 (60.6)
Divorced/Separated/Widowed	117 (23.9)
Never Married	76 (15.5)

Table 1. Sample characteristics (n=490) cont.

	N (%)
Arthritis Type	
Inflammatory arthritis	163 (33.3)
OA	278 (56.7)
Both OA & RA	49 (10)
Arthritis Duration, mean ± SD years	9.17 (8.8)
Employment Sector	
Business, finance, administrations	162 (33.1)
Health, science, art, sports	175 (35.8)
Sales, service	102 (20.9)
Trades, transportation	50 (10.2)

Workplace Activity Limitations Scale (WALS)

- 12 items measuring physical activity limitations in the workplace
- Response key patterned after the Health Assessment Questionnaire (HAQ: 0 = not at all difficult; 3 = unable to do)
- Applied to samples of IA, OA, lupus, juvenile arthritis (ages range from 20 years +)
- Internal consistency ranges from .77 to .90 (higher with clinical samples)

WALS (Gignac, Cao, Tang & Beaton, 2011)

Reported at least some difficulty (%)	**Time 1 n=474**	**Time 2 n=353**	**Time 3 n=296**	**Time 4 n=255**
1.Schedule or hours work job	32.2	28.4	24.7	31.4
2.Getting to and from work	30.6	22.5	23.6	25.5
3.Meeting current job demands	33.1	36.5	27.4	34.1
4.Getting around workplace	38.4	39.3	35.8	39.6
*5.Concentrating on work	--	37.9	32.1	36.5
6.Pace of work job required	39.8	38.5	38.2	38.4
7.Reaching	30.2	32.3	30.7	37.6
8.Working with hands	53.9	54.2	54.7	59.6
9.Sitting for long periods of time	48.9	57.5	57.1	63.1
10.Standing for long periods of time	59.1	50.6	57.1	65.9
11.Lifting, carrying, or moving	56.2	61.5	68.9	65.5
12.Crouching, bending, or kneeling	59.8	61.7	66.9	74.1
Mean WALS (SD)	6.4 (4.4)	6.7 (4.8)	6.8 (4.6)	7.7 (4.8)

Workplace Activity Limitations (WALS)

	% (T1-T4)
• Low WALS (scores 0-4)	31.0-38.8
(i.e., no difficulty or some difficulties with up to 1/3 of items)	
• Moderate WALS (scores 5-8)	25.8-34.8
• High WALS (scores 9+)	29.4-40.8
(i.e., ongoing difficulty with 2/3 of Items or unable to perform some work tasks altogether)	

WALS Changes over Time (n = 214)

	% (n)
Percentage of Respondents Reporting a Consistent Level of WALS Difficulty	
Consistent low difficulty (WALS score 0-4)	15.9 (34)
Consistent medium difficulty (WALS score 5-8)	1.4 (3)
Consistent high difficulty (WALS score 9 or more)	9.3 (20)
Total	26.6 (57)
Percentage of Respondents Reporting Variable Levels of WALS Difficulty	
Increase in level of WALS difficulty	25.2 (54)
Decrease in level of WALS difficulty	16.4 (35)
Both increase and decrease in level of WALS difficulty	31.8 (68)
Total	73.4 (157)

Workplace Activity Limitations

Consistently low WALS (n = 34)

Decreasing WALS (n = 35)

Fluctuating WALS (n = 68)

Increasing WALS (n = 54)

Consistently moderate-high WALS (n = 23)

Workplace Activity Limitations

Consistently moderate-to-high WALS:

- More Job Disruptions (e.g., work interruptions, missed meetings, late arrivals or early departures from work, not being able to take on additional projects or responsibilities)
- Greater work stress

Fluctuating WALS group, Increasing group & Consistently Moderate-to- High group:

- Similar total absenteeism across all study waves

Implications for Measurement & Self-Management

Are we over-estimating presenteeism if so many individuals have episodic disability?

Are people delaying the use of accommodations and self-management behaviours?

Positive Aspects of Working

- Social interactions and support from others
- Psychological benefits
- Physical activity (e.g., commuting, getting around the workplace)
- Being productive and contributing to society
- Financial benefits
- Benefits and disability insurance

Gignac, M.A.M, Backman, C.L., Kaptein, S., Lacaille, D., Beaton, D.E., Hofstetter, C., & Badley,E.M. (2012). Tension at the borders: Perceptions of Role Overload, Conflict, Strain and Facilitation in Work, Family and Health Roles among Employed Individuals with Arthritis. Rheumatology, 51, 324-332..

Work-health-life Balance Study

- N ~ 350
- Community-based sample; individuals with inflammatory arthritis and osteoarthritis
- All participants complete a telephone interview and self-administered questionnaire
- 3 waves of data planned; baseline data complete

Do you feel “locked in” your current job?

(i.e., trapped in your job and unable to look for other work)

Job Lock

- 41.5% (n = 124) of participants reported job lock
- No significant gender or age differences

- Older workers (age > 50 years) most concerned about job seniority and benefits
- Middle-aged most concerned about benefits and the impact of a new job on health

Job Lock

Other reasons for job lock:

- Poor health precludes looking for a job
- Relocation difficulties
- Lack skills
- Poor job market

Job Lock

Associated with:

- Greater # of joints affected by arthritis
- Greater number of work hours
- More years with an employer
- Lower job control
- Greater work stress

Analyses included gender, age, pain, fatigue, # of joints, hours of work, years of employment, job control, union membership, perceived job fit, organizational support, work stress

Job Lock

Older Workers:

- More years with an employer
- Union membership
- Greater work stress

Middle-aged workers:

- Greater # of joints affected
- Greater work stress

Job Lock

	Yes	No
Absenteeism	57.3%	44.6% *
Job Disruptions	2.41	1.45**
Perceived Productivity	2.35	1.92**

*p < .03; ** p < .001

Summary

- Chronic diseases have considerable personal and social costs
- Intermittent/episodic disability may create unique sources of stress in arthritis
- Episodic disability was common, but are we over-estimating presenteeism in arthritis samples?
- People with arthritis note positive aspects of working, but many report feeling trapped in their jobs
- Greater attention to the determinants and consequences of job lock is needed across the work cycle

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Thank you!

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