The Australian WorkHealth Program:
A whole of system approach to primary and secondary prevention of arthritis in the workplace

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Asthma and Arthritis Section
Chronic Disease and Palliative Care Branch
Department of Health and Ageing

The project investigators

- A/Prof Richard H Osborne
  - Epidemiology, health services research, self-management
- Ms Jenni Livingston
  - Education, evaluation, innovation
- Prof Kim Bennell
  - Clinical research, health exercise and sports medicine
- Prof Rachelle Buchbinder
  - Clinical epidemiology, rheumatology, communication
- Mr Chris Stecki
  - "C-Level" experience, industry consultant, training specialist

The project team

- Dr Nicola Reavley
  - Study manager
- Mrs Angela Wood
- Ms Deanna Norris
- Ms Bianca Chan

Arthritis in Australia

- Nearly one in five Australians has arthritis
  - 2.4 million Australians of working age
- Impacts on the lives of those affected:
  - pain, stiffness, and reduced function in the joints
  - leading cause of disability
  - Absenteeism, presenteeism, premature exit from workforce
  - $1.6 billion p.a. in health-care costs (AIHW)
  - Enormous cost to industry
- National Health Priority Area since 2002

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Arthritis & the workplace

- Labour force participation in those with arthritis is 20% lower in men & 25% lower among women (Yelin 1992)
- 4% lower annual work output (Muchmore 2003)
- Presenteeism costs ~75% of arthritis-related lost productive time ~ 3 to 4 days a month lost (Kessler 2001, Stewart 2003)


Primary prevention

Potentially modifiable risk factors include occupational and non-occupational

- Injury
- Lack of physical activity
- Obesity
- Occupational factors
- Sports participation
- Joint malalignment
- Muscle weakness
- Bone density
- Nutritional factors
- Hormonal influences
- Psychosocial factors

Secondary prevention

Focus on:
- Appropriate assessment of the cause of the problem
- Early and appropriate management
- Education in the importance of self-management, including information on – the condition, treatment, lifestyle and pain management
- Environmental adaptations at work and at home

The Australian WorkHealth Program—Arthritis
Aims

To develop and test an education and self-management program for administration in workplaces to reduce the risk of:

• arthritis onset and progression
• arthritis-related absenteeism and presenteeism

The intervention will be whole of system (senior management through to workers) and appropriate for a wide range of workplaces.

Steering committee

Prof Richard Reed* General Practice, Flinders University, SA (chair)
Elizabeth Scrivener CEO Arthritis Foundation ACT
Rwth Stuckey Associated Professional Ergonomists, Vic
Steve Mullins OHS Unit, Australian Council of Trade Unions
Dr Neville Johnson Connections Educational Consultancy / Faculty of Education, Uni Melbourne, Vic
Ben Horgan Consumer Representative, Consumers, WA
Tess Vietz Health Forum (CHF), Bone and Joint Decade
Dr Rob McDonald Rio Tinto, Australasian Faculty of Occupational Medicine, Vic

Industry Advisory Group (IAG)

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<tr>
<th>Company</th>
<th>Position</th>
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<tr>
<td>Rio Tinto</td>
<td>Director of Health, Safety &amp; Environment</td>
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<td>ANZ</td>
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<td>BP</td>
<td>Occupational Health Physician</td>
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<td>ACCI</td>
<td>OHS Advisor</td>
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Program development

An integrated approach to program design:

• Stakeholder approach to identify stakeholders’ perspectives, ideas and expectations
• Social science approach to derive program theory from the existing body of literature
Program development

- Concept mapping workshop
- Program logic model
- “Realist” review of the literature
- In-depth industry consultation

Concept mapping workshop

- Concept mapping is a computer assisted qualitative method of collecting information on a topic
- It is a highly structured process used to obtain and organise the largest possible breadth of ideas

Attendees

50 attendees:
- National representation
- Consumers
  - Patients
  - Experts in chronic disease patient education/self-management program delivery
  - Health professionals (doctors, nurses and physiotherapists)
  - Public health practitioners
  - Occupational health and safety experts
  - Industry representatives
  - Academics
  - Policymakers

Concept mapping workshop

- 3 main components:
  - Nominal group technique
  - Brainstorming in response to a *seed*ing statement
  - Sorting and rating task
  - Refining the “map” derived from the statistical analyses
- Group discussions
Seeding statement

Thinking as broadly as possible:

*What changes in education and support should occur in the workplace to help in the prevention and management of arthritis?*

“Clusters” of ideas / concepts

- Management require education and awareness
- Working practices/environment
- Program specialization and flexibility
- Financial/business case
- Healthcare consultation and management
- Integration of workplace services
- Workplace evaluation/Quality Assurance
- Public education
- Employee self-management
- Disease management – evidence-based programs

Program logic

- Outcomes from concept mapping workshop
- Heuristic incorporating comprehensive and evidence-based intervention approaches
- Outcome hierarchies produced during the group discussion sessions

Program logic

- Guiding principles of the program
- Service providers
- Services
- Delivery approaches
- Conditions for learning
- Program elements
- Outcomes
Literature review

- Program logic or ‘theory of action’ complemented by an explanatory analysis aimed at discerning:
  - what works for whom,
  - in what circumstances,
  - in what respects and
  - how

Realist review

- A model of research synthesis designed for complex social interventions
- Explanatory analysis aimed at discerning what works for whom, in what circumstances, in what respects and how.
  - What is it about education and self-management programs that work, in what circumstances, in what respects and why?

Workplace interventions

- Workplace is a good setting for health education
- Easy and regular access to a large number of people, including those subgroups at increased risk of morbidity and mortality
  - eg. those with lower levels of education, middle-aged men and those with sedentary jobs
- Opportunity for sustained peer support and positive peer pressure
- Can address both occupational and non-occupational risk factors
Workplace interventions

- US Department of Health and Human Services survey
  - ~90% of workplaces with 50 or more employees have a health promotion program
- Focus on reducing risk factors such as
  - tobacco use, obesity, sedentary lifestyle, poor nutrition, high blood pressure, high cholesterol and unsafe alcohol use
- Very little focus specifically on arthritis prevention and management

Characteristics of successful interventions

- Comprehensive
- Stakeholder participation in planning and implementation (managers, employees and union representatives)
- Strong ‘business case’
- Tailoring/individualisation
- Peer coaching/counselling or mentoring
- Incentives
- Well evaluated
- Strategic use of specific organisational and workplace attributes
- Strategic use of innovation theory

Themes in innovation

- The innovation itself
- The adoption process
- Communication and influence (including social networks, opinion leadership and change agents)
- The inner (organisational) context
- The outer (inter-organisational) context
- The implementation/sustainability process
- Linkage between components of the model

Industry consultation – sectors targeted

- Communication
- Education
- Health
- Manufacturing
- Retail
- Transport and logistics
- Construction
- Finance
- Horticulture
- Power generation and supply
- Public service
- Industry authorities
Industry consultation – in depth interviews

- Extent to which arthritis is seen as a problem
- Currently available health and wellbeing policies and programs
- Enablers of success
- Barriers to effectiveness
- Desirable outcomes of intervention program
- Evaluation

Industry consultation – main findings

- Little or no data on and minimal understanding of the impact of arthritis
- General concern about an ageing workforce
- Universal desire to reduce Workcover claims
- Large companies have employee health and wellbeing programs
- Larger corporations less likely to need to make “business case” in order to introduce an initiative

Industry consultation – main findings

- Tailoring and flexibility considered important
- Education of senior management seen as vital first stage
- Little or no evaluation of current programs
- White collar companies largely motivated by attracting and retaining staff – marketing important
- Blue collar companies largely legislation driven with injury reduction a priority

Program structure

- Assessment
- What's in place
- Available outcome related data
- Staff experiences/needs
- Interventions
- Multiple pathways
- Flexible
- Tailored
- Evidence-based
- Meet the conditions for learning
- Evaluation & measurement
- Key indicators of success in terms of both health outcomes and financial metrics
Where to from here

- Pilot programs to commence in June 2008
  - Needs assessment
  - Development of ‘whole of system’ intervention
    - Augment current interventions / policies
    - Bring in outside interventions
    - Develop new components
- Several months of testing / redevelopment
- ~6 months formal intervention
- Evaluation
- Completion ~ November 2009