



HUNTER NEW ENGLAND
NSW HEALTH

Falls Injury Prevention in RACF A Three Year Randomised Controlled Trial

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Background

- 30% of hip fractures come from ACFs
- Research overseas had suggested that hip fractures in ACFs could be prevented
 - Calcium and vitamin D – Chapuy – 30-40% reduction
 - Hip protectors – Lauritzen – 50% reduction
- Reducing hip fractures by 10% would save 600 beddays or \$300,000 pa
- Obstacles to falls injury prevention in ACFs
 - competition for staff attention
 - lack of support

Project hypothesis

- That the employment of a project officer to assist residential aged care facilities to implement an evidence-based multi-factorial strategy to reduce falls injuries would reduce the number of hip fractures.
- The bedday savings to the Area Health Service would make the ongoing employment of the project officer cost-effective.

Acknowledgements

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- The Management Committee of Dr John Ward, Professor Julie Byles, Dr Annette Carruthers, Dr Lynette McKenzie, Dr Kim Wylie, Ms Pam Albany, Ms Noeline Karlson, Mr Tony Pelosi, Mr Ming Lin, Ms Lorraine Lovitt, Ms Patsy Bourke, Ms Sue Oakey
- Statistical support and data analysis from Mr Richard Gibson, University of Newcastle

Falls Injury Prevention in RACF Research Project



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Falls Injury Prevention in RACF Research Project

- Description of project
 - Newcastle, Hunter Valley and Lower Mid-North Coast of NSW
 - 98 facilities (high and low) with more than 20 beds eligible
 - 88 agreed to participate and 4 subsequently withdrew
 - Facilities randomised into intervention or control groups
 - Total of 4895 residents,
 - 6 months base-line observation and 17 months intervention

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■ Profile of intervention and control group

- 98 facilities, 6 too small, 4 declined
→ 88 for randomisation
- Balance rural and urban
- Balance bed numbers
- Balance bed types

Combinations	Total number of facilities	Total in intervention
High care + dementia specific	25	13
High and low care only	10	5
High and low care + dementia specific	11	6
Low care + dementia specific	19	10
Low care only	23	12
Total facilities and (beds)	88 (4895)	46 (2428)

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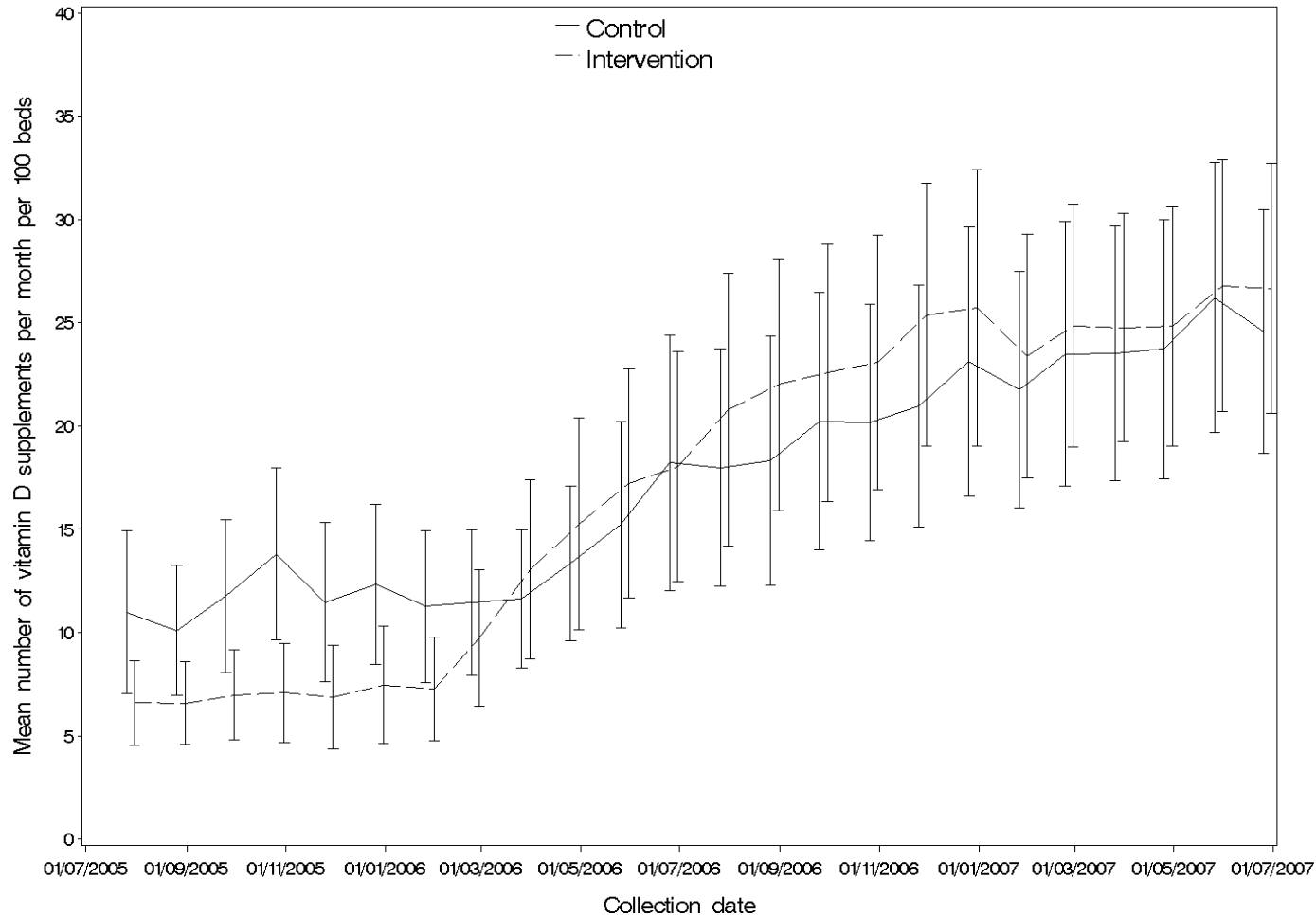
- Intervention strategies promoted
 - Falls risk assessment on admission and ongoing
 - Calcium and vitamin D supplementation
 - Hip protectors for high risk residents
 - Medication reviews
 - Exercise programs
 - Safe footwear
 - Post-fall review and re-assessments
 - Environmental reviews
 - Include information in admission packages for new residents

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- Methods used to promote strategies
 - Education and training for 'Link' people
 - 2nd monthly newsletter
 - 2nd – 3rd monthly network meetings
 - Visits by Project Officer to facilities
 - Brochures on all strategies
 - Provision of resource kit and training materials to all facilities
 - Dinner / letters / phone calls for GPs and Pharmacists
 - Division of GPs newsletter
 - Development of guidelines, tools and forms

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- Results - use of vitamin D



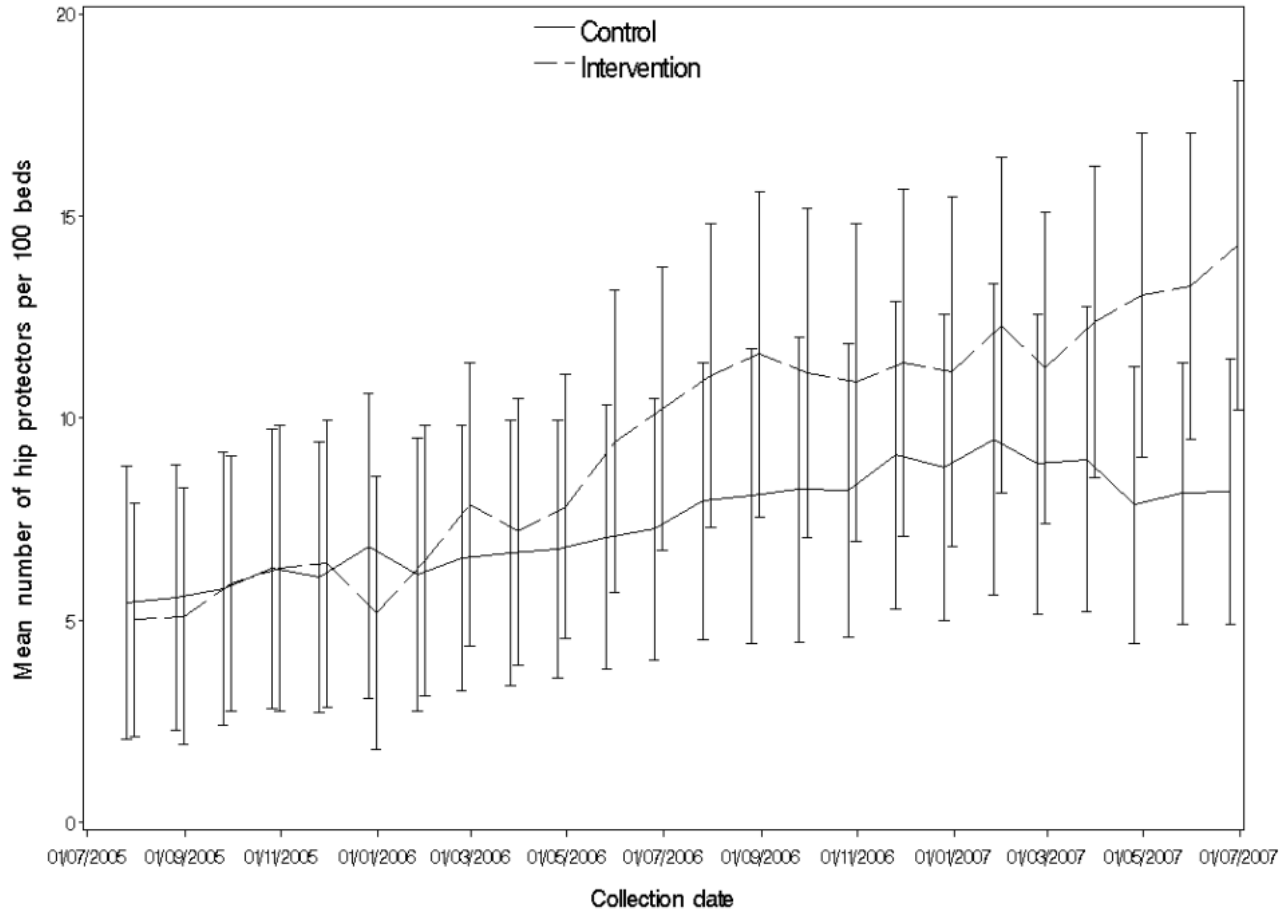
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- Results – use of hip protectors



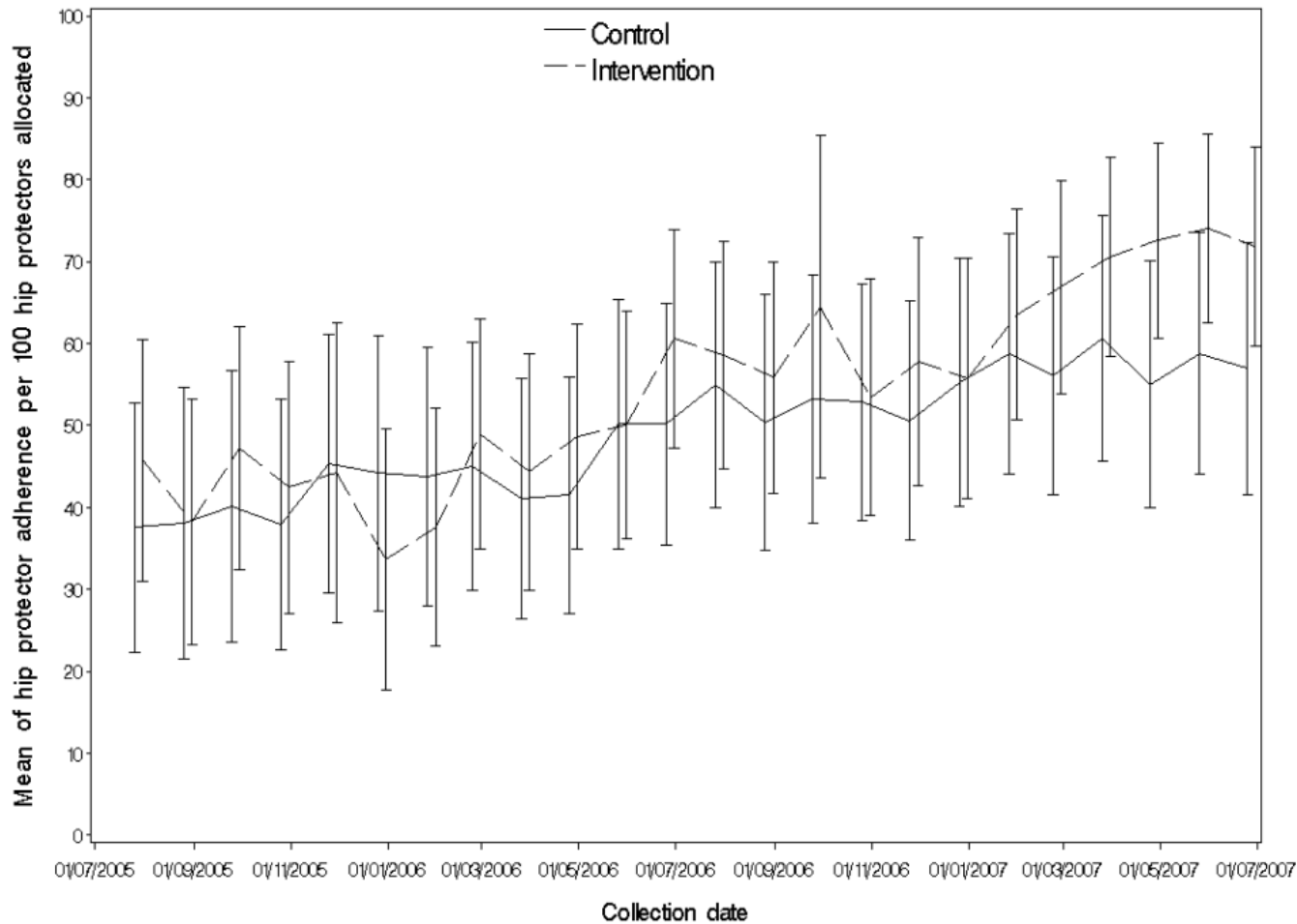
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- Results – compliance with wearing hip protectors



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- Results – hip fractures

- 4895 residents at the census followed for almost 1½ years (Feb 2006 – July 2007)

	Intervention	Control
Hip fractures	107	109

- No difference between intervention and control with respect to number of #NOF overall.
- No difference between baseline period and last six months
- Risk of fractured hip increased with age, dementia, higher falls risk score, being ambulant, being in a facility with higher number of low care beds

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- Possible reasons for failure to reduce hip fractures
 - Cross contamination between intervention and control groups
 - GPs severed facilities in both groups
 - Short duration of intervention
 - Failure to increase use of strategies
 - medication reviews
 - confusion about calcium
 - Ineffectiveness of strategies
 - hip protectors
 - few studies have reduced fractures
 - High number of people with dementia
 - Inability of staff to allocate resources/time

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- National implications

- Need a palatable calcium for older people
- Need a high dose vitamin D
- More effective system of medication reviews
- Advice on hip protectors
 - durability, cost, effectiveness
- Special funding for ACFs to provide resources for falls injury prevention programs for ‘high risk falls’
- Nurse Practitioners may be better placed to manage falls injury prevention than GPs

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- State implications
 - Consider funding a longer trial

 - Fund Liaison Nurses to work with ACFs on:
 - falls injury prevention
 - advance care planning
 - hospital avoidance programs
 - post-acute and acute care in ACFs
 - discharge planning to ACFs
 - end of life care
 - care of terminal dementia

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- Area Health Service implications
 - Employment of full-time project officer not justified
 - RACF Falls Injury Prevention Network to meet by telephone regularly to encourage programs
 - Liaison Nurse to include Falls Injury Prevention in role responsibility and coordinate Network
 - Health Service to identify patients from ACFs with neck of femur fractures

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Thank you

