

# Falls Clinics – what is their future?



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*Falls Clinic Coalition, 2009*

## Overview

- Models of service delivery
- Development of a Minimum Data Set (MDS)
- Evidence of effectiveness
- Factors limiting outcomes
- Client adherence to recommendations

## Definition:

### What constitutes a falls clinic?

*“specialist **multidisciplinary services** which focus on the **assessment and management of clients with falls, mobility and balance problems**. Clinics commonly provide **time limited, specialist intervention to the client and advice and referral to mainstream services for ongoing management**. They provide **education and training to clients, to carers, and to health professionals..”***

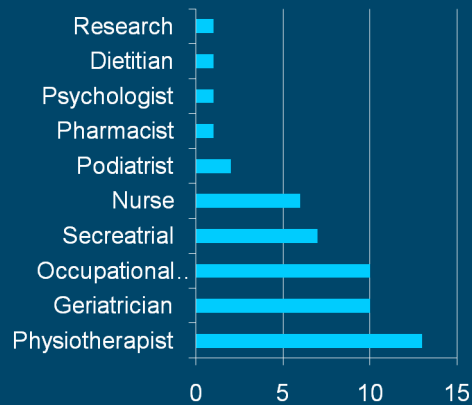
*though usually high risk, and not first management option*

Victorian Government DHS Falls and Mobility Clinics: Program guidelines and performance indicators

## Models of clinics (in Australia)

### ● Highly variable

- Staffing (most commonly physio, geriatrician, OT, nurse)
- Differing assessment procedures and times
- Varied assessment tools within a single domain
- Differing review / followup
- Waiting lists (range 0-16 weeks)



Hill K, Smith R, Schwarz J, Aust Health Review, 2001

## Within discipline variability

### ● Podiatrist involvement in Falls Clinics in Australia:

- Identified 36 clinics, 25 responded to survey
- Four clinics had podiatrists
- Podiatry services varied considerably in relation to:
  - eligibility criteria
  - assessments undertaken, and
  - interventions provided.

Menz H & Hill K, J American Podiatr Med Assoc, 2007

## Models of clinics (in Australia)

### ● Areas of general consistency

- Almost all centre-based
- Almost all have home visit as optional intervention as required
- Limited number of interventions provided directly by Clinics ( provision of gait aids, ordering hip protectors, provision of home exercise program, etc)
- Almost all have main interventions as referrals to other agencies (group or 1:1 exercise, home supports, dietitian review, etc)

Hill K, Smith R, Schwarz J, Aust Health Review, 2001

## Models of clinics (in Australia)

- **A different approach (Peninsula Health)**
  - Regional falls prevention service, of which falls clinic is one integrated element
  - All referred patients receive initial home visit assessment
  - Determination of appropriate referrals, including relevant referrals to falls clinic
  - Streamlines appropriate service delivery
  - High importance placed on seeing the client in their home environment

## Development of a Minimum Data Set (MDS): rationale

- **Wide variation in demographic, fall related and outcome measures used in different clinics**
- **No capacity for pooling of data**
- **Desire to evaluate clinic outcomes**

## Development process for MDS

- Survey of all Australian Falls Clinic (Hill et al, 2001) included review of assessment tools
- Consensus approach to importance, relevance and practicality of measurement domains and measures
- Outcome focus
- Trial in three Clinics
- Refinement of Minimum Data Set based on outcomes

## Falls Clinic Minimum Data Set

Outcome Measures (Initial and follow up data)

**Q16. Falls and Falls Injuries**

Q16.1. How many times has the client fallen in the past six weeks or since the last Falls Clinic assessment?

Q16.2. How many of those falls have resulted in an injury?

Q16.3. How many of those falls have resulted in the client seeking medical attention or going to hospital?

**Q16.A.** Please indicate the reason of any injuries sustained as a result of these falls:

Strains, sprains  
 Cuts, or abrasions  
 Bruises and stabbings  
 Fractures  
 Other

**Q17. Functional Measures**

Q17.1. Rise/Step Barter Scale

Q17.2. Pencil/Slot Scale

**Q18. Balance**

Q18.1. Timed Up and Go Test (distance 3m, seat height 45cm, chair height 45cm)

Q18.2. 30-Second Stand Test (Number of stands taken over 30 seconds)

**Q19. Leg Muscle Strength Test** (seconds) (time to stand up and sit down from a standard height (45cm) chair three times (allowed 1.5m gap) of the chair)

**Q20. Gait (Walking Speed/Velocity)** Time (seconds) taken to walk a distance of approximately 10m (1 metre warm up and walk 9m)

**Q21. Fear of falling Modified Falls (Harris Scale score)**

- Web link
- Key Point survey software
- Electronic data entry and submission
- Data easily exported to data analysis package (SPSS)

## Evaluation of Victorian Falls Clinics

- **Aim: to evaluate the utility of the Falls Clinic MDS in identifying key outcomes for Falls Clinics**
- **14 Victorian Falls Clinics involved**
- **Initial assessment data for 6 months (n=526)**
- **6 month follow-up assessment data**
- **Electronic submission of de-identified client data**

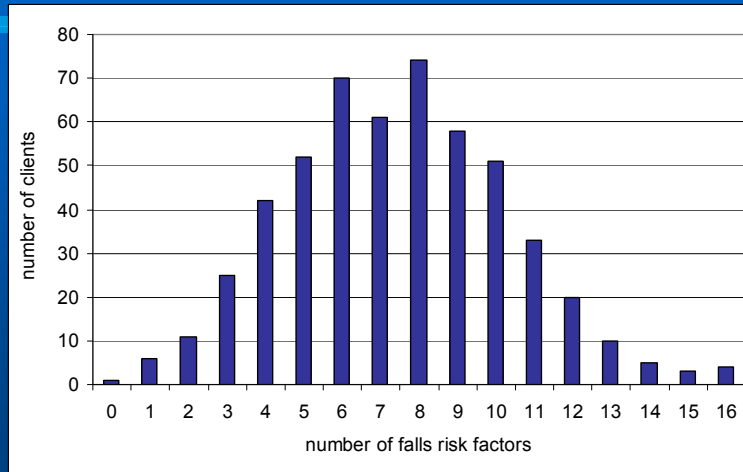
Hill K, Moore K, Day L, Dorevitch M. JAGS 2008

## Demographic profile (n=526)

- **73% female**
- **Mean age 76.9 (89% 65 years and over)**
- **23% living alone, without a carer**
- **5% living in residential care / other supported accommodation**
- **56% accessed community services (45% home care; 21% personal alarm; 16% home maintenance)**
- **24% had cognitive impairment as a risk factor or a low MMSE or AMTS score**

Hill K, Moore K, Day L, Dorevitch M. JAGS 2008

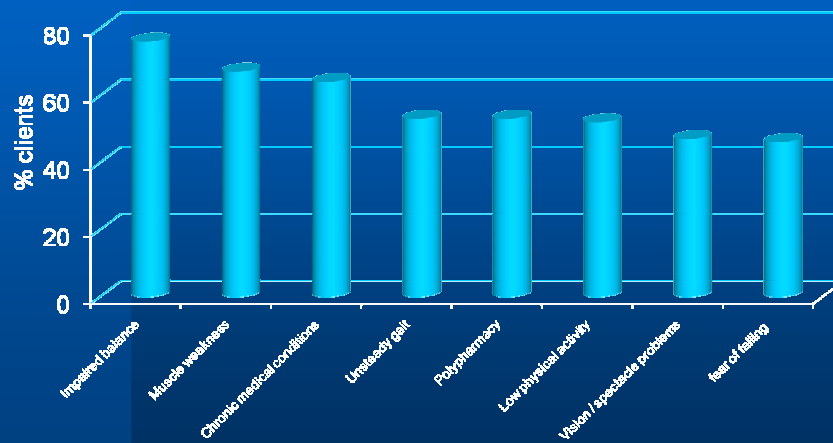
## Number of falls risk factors



Mean 7.6 (2.8) falls risk factors / patient

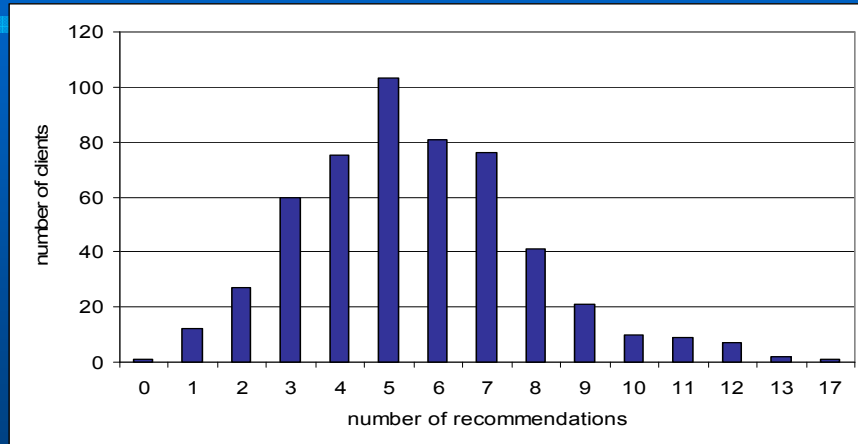
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## Common risk factors



Hill K, Moore K, Day L, Dorevitch M. JAGS 2008

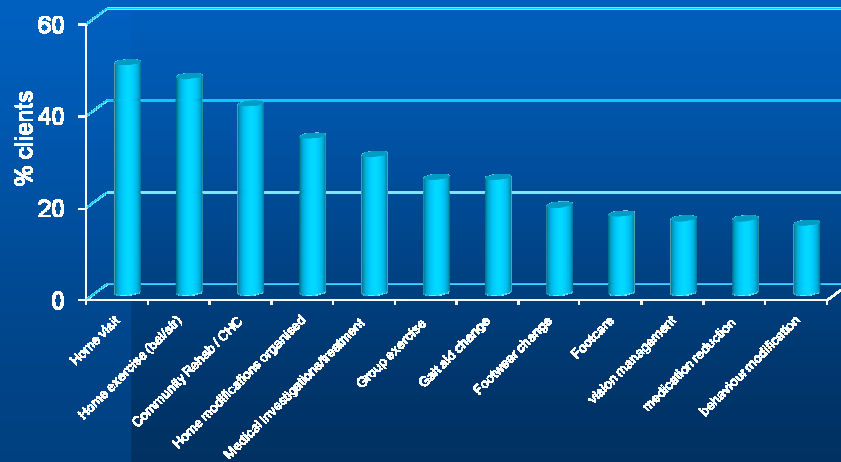
## Number of recommendations



Mean 5.7 (2.3) recommendations / patient

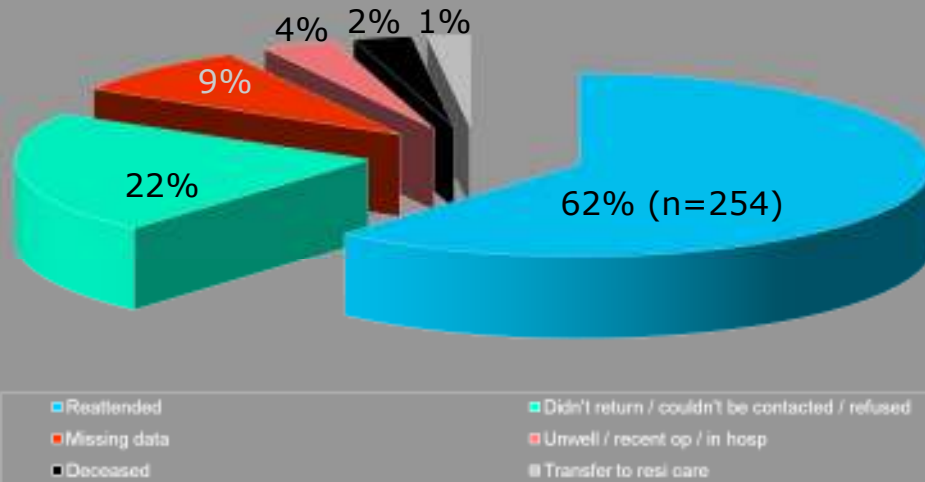
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## Common recommendations



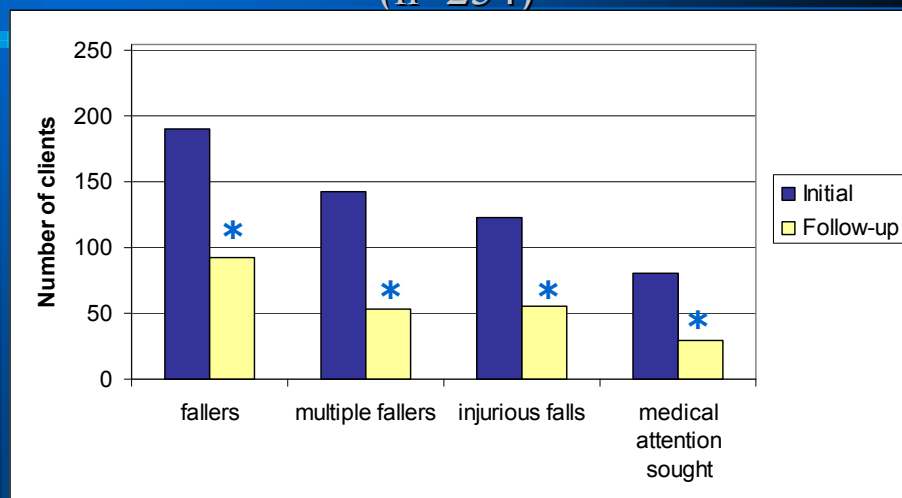
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## 6 month follow-up: Attendance



**N=413 (excluding 45 with at Clinic with no follow-up, 35 with follow-up appointment out of scope, and 33 clients not requiring a review)**

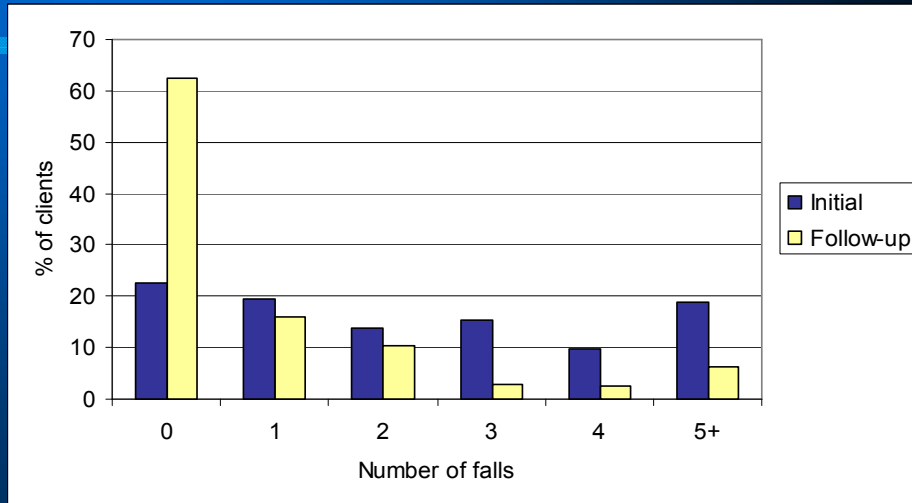
## Outcomes: Falls, injuries and medical attention (n=254)



\* p < 0.05

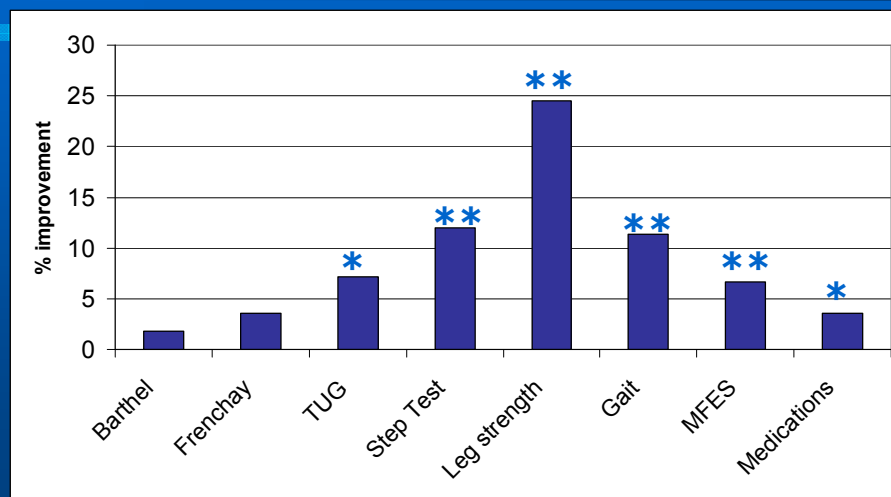
Hill K, Moore K, Day L, Dorevitch M. JAGS 2008

## Outcomes: Number of falls



Hill K, Moore K, Day L, Dorevitch M. JAGS 2008

## % improvement in secondary measures



\* < 0.05

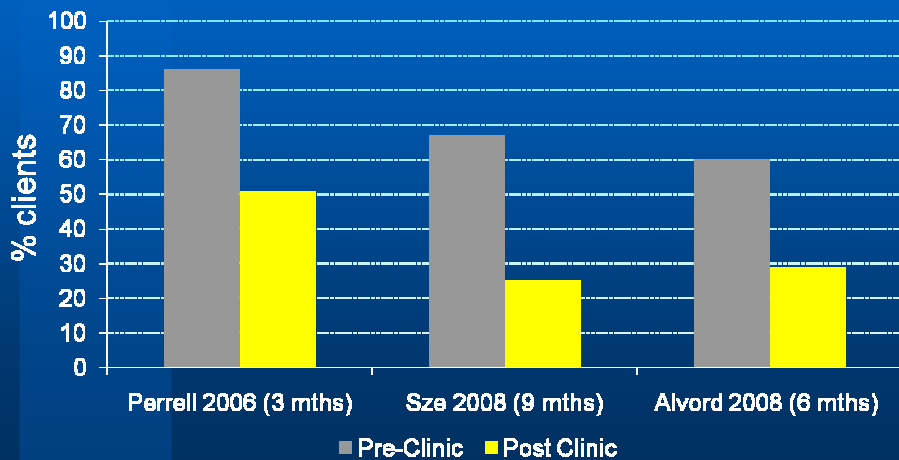
\*\* < 0.01

Hill K, Moore K, Day L, Dorevitch M. JAGS 2008

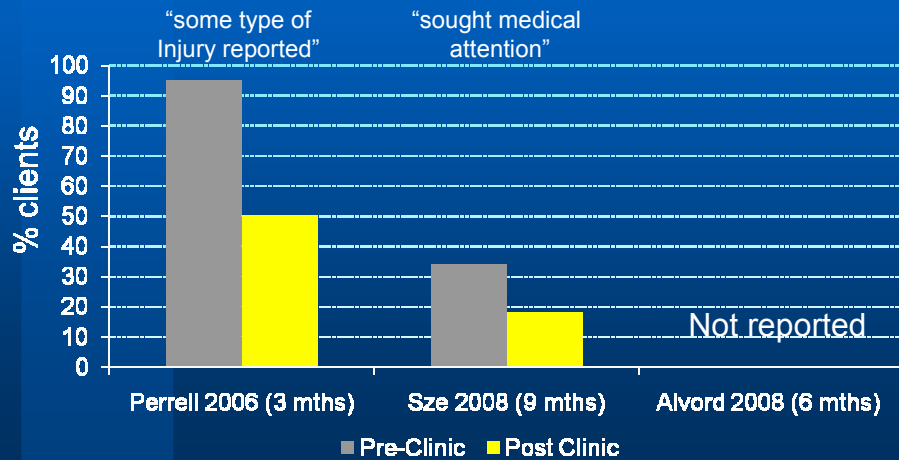
## MDS evaluation survey

- Distributed to and received from all 14 participating Clinics (representing 31 staff)
- Generally high satisfaction with the MDS
- Some modifications recommended
- Concerns about time required to continue completing the MDS data
- Issues raised about the BMI, Barthel, Frenchay, MFES and leg strength

## Other recent supportive evidence (pre-post analyses): falls



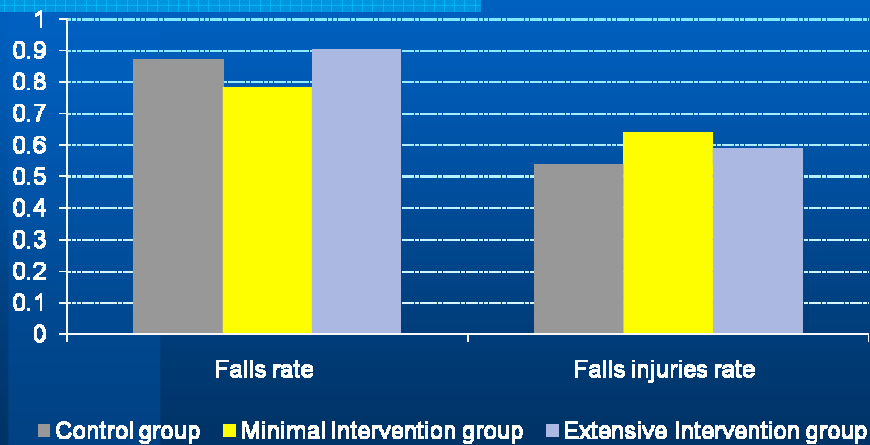
## Other recent supportive evidence (pre-post analyses): falls injuries



## A negative randomised trial

- 620 participants aged 75+ recruited from a health insurance company database
- Assessments based on Physiological Profile Assessment (PPA)
- Randomised to:
  - extensive intervention (exercise and sensory management)
  - minimal intervention (advice)
  - control (no intervention)

## Outcomes: Falls and falls injuries



Rates calculated as number of events / number in group,  $p > 0.05$

Lord S et al, JAGS 2005

## Issues and implications

- Sample generally not at moderate to high falls risk (not typical of other reported falls clinics)
- Only single assessor for PPA (not multidisciplinary assessment)
- Only addressed physiological factors (balance, strength, vision, somatosensory loss)

*Potentially useful model of group allocation for RCT*

Lord S et al, JAGS 2005

# A study of falls clinic client adherence

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Funded by: Safety Innovations In Practice Program (MK III), Australian Safety and Quality Council.

## Background

- Previous research (MDS project, NARI, 2004) indicated varying levels of adherence across client groups and types of interventions
- Overall 17% of interventions were not undertaken and a further 19% partially undertaken
- 38% of clients not returning for follow-up assessments
- Lack of documentation regarding why interventions were not undertaken

## Project aim

*to identify strategies to improve engaging Falls Clinic clients in activities identified as likely to minimise future risk of falling*

## Methodology

- Surveys to clients and carers on waiting lists (n=25)
- Surveys to clients and carers after an assessment (n=46)
- Clinic staff to record reasons for not undertaking recommendations as discussed at follow-up assessments (n=92)
- Telephone interviews with clients who missed follow-up assessments (n=8)

## Clients waiting for assessment (n=25)

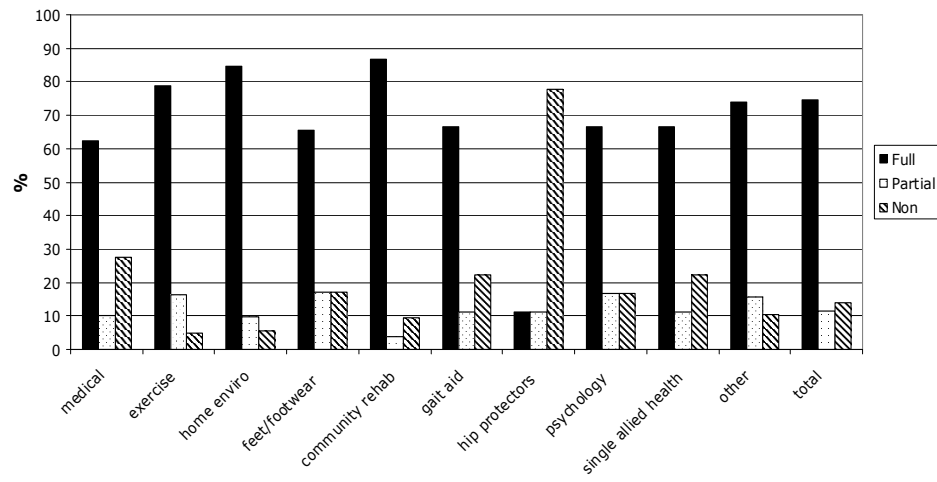
- 83% reported that falls and falls risk could be reduced
- Most anticipated benefits from the clinic; eg:
  - Improved balance and strength;
  - Reduction in falls;
  - Finding the cause of falling/info about capabilities;
  - Increased confidence;
  - Get up independently after a fall; and
  - Taught to walk properly

*However, 6 were unsure/didn't think they would benefit & another didn't expect longterm benefits*

## Clients waiting for assessment (n=25)

- 4 respondents not prepared to exercise - 'frightened', 'too old', 'wary about walking in the streets'
- 72% preferred exercises at home rather than centre
- 56% preferred exercises on their own; 28% with people they knew & 24% with people they may not know
- 7 respondents would not consider using a gait aid (reduces independence/embarrassing)
- 2 would not consider hip protectors (didn't think they needed them) & 2 didn't know what they were

## Adherence with recommended interventions (n=92)



## Barriers to undertaking interventions

Clients and staff identified similar barriers:

- **Service level:**

- system failures (appointments not made)
- other health practitioners not supporting Clinic recommendations
- appointment still being arranged/demand for services

## Barriers to undertaking interventions

- **Client level:**
  - cost (home modifications)
  - waiting for family assistance (home modifications)
  - client unwell/aggravates existing condition
  - dementia
  - client considers intervention inappropriate for them
  - client doesn't see the need/low motivation
  - not wanting therapy (CRC)
  - hip protectors wrong size

## Framework & Recommendations (1)

- Provide additional written information to supplement verbal information
- Clarify relevance of interventions/consider pre-clinic survey
- Provide options for client/carer to select interventions where alternatives available
- Trial/ensure appropriateness of intervention/active role in prescription
- Support mechanism for potential low compliers

## Framework & Recommendations (2)

- Consider a case coordinator - follow through intervention plan
- Follow-up clients who do not return for review/offer alternative appointment if appropriate
- Follow-up services/practitioners where recommended actions not implemented
- Routine use of interpreters for clients requiring one (minimise using family members/carers for translating information).

## Older people's experience of falls and bone health services (UK)

### Key messages:

- “Participants were often unaware of what falls services were available, how referral took place, and how they related to other primary and community services;
- Participants often thought their GPs were unaware of these services;
- Some participants felt the name “falls clinic” was odd and off-putting, and open to misinterpretation;
- Most participants reported having a thorough assessment but some were not aware of the outcomes or conclusions, or of their right to ask for results;
- On the whole, participants reported their attendance at falls clinics to have been a positive experience, highlighting both physical and psychosocial benefits;
- They considered their thorough assessment to be an added benefit, but it was generally unclear to them how the assessment outcomes were used to develop individualised management plans, or how interventions might reduce their own falls risk.....”

## The critical role of the general practitioner

- A survey of general practitioners (n=35, 57% response rate) referring to falls clinics identified:
  - general satisfaction with falls clinic service
  - most reported that suggestions by falls clinics had influenced their consideration of prescribing for the patient; and of medical therapies instituted
  - Uncertainty as to whether falls clinic involvement had reduced their patients risk of falling
  - 64% of recommended medication changes by falls clinics were instituted

C. Beer, Aust Family Physician 2006

## The critical role of the general practitioner

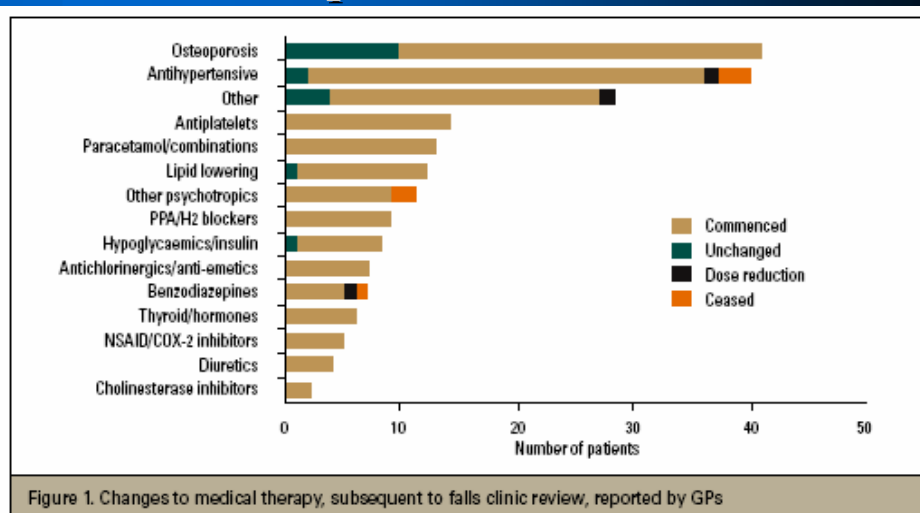


Figure 1. Changes to medical therapy, subsequent to falls clinic review, reported by GPs

C. Beer, Aust Family Physician 2006

## Research gaps

- **Comparison of models of care**
- **Randomised trial evaluation**
- **Cost effectiveness evaluation**