

INTEGRATED SOLUTIONS FOR SUSTAINABLE FALL PREVENTION

THE iSOLVE PROJECT

Establishing pathways and
processes to implement and
sustain evidence-based fall
prevention in primary care

Trans Tasman Symposium, 2017
Lindy Clemson
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THE UNIVERSITY OF
SYDNEY



THE iSOLVE PROJECT



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ACTRN12615000401550

Website: www.bit.ly/isolve

CHALLENGES IN EVIDENCE UPTAKE AND TAKING TO SCALE

Older people think a fall is just a part of 'ageing'

GP's report lack of time, 'more pressing' health issues, see injury, not prevention, lack of educational materials

Screening does not lead to interventions

Interventions in research have better outcome

< 30% of health care providers routinely screen for falls.

GPs not aware who does what

Too few organisations regularly offer evidence-based falls prevention

Multiple stakeholders in falls prevention- different roles

No clear model for delivery in primary care

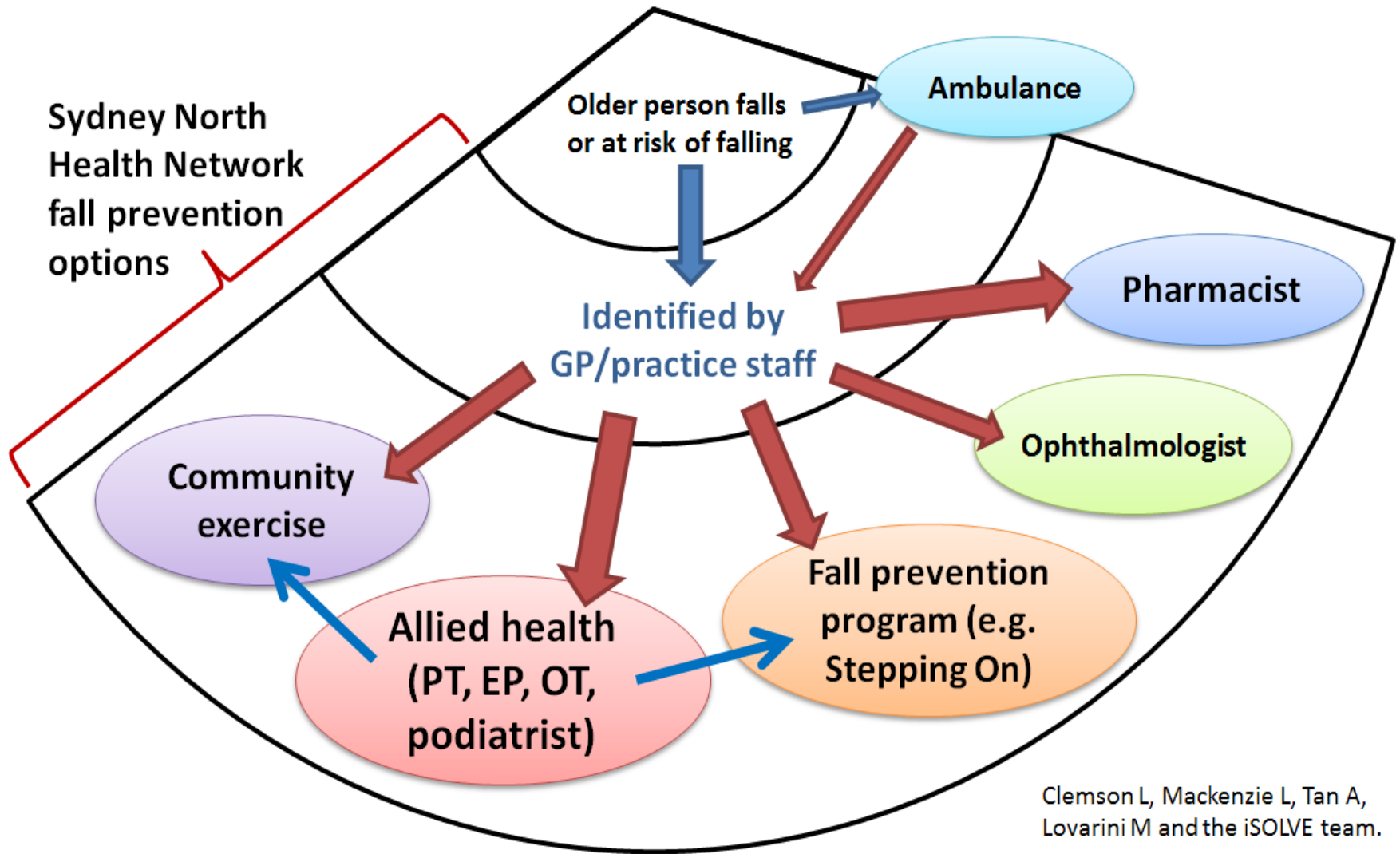
AIMS OF THE ISOLVE PROJECT

Establish integrated processes and pathways to identify older people at risk of falls and engage a whole of primary care approach to fall prevention.

Form referral pathways and networks with GPs and allied health service providers

Improve access to appropriate fall prevention interventions for older people, ensure ongoing knowledge acquisition and sustainable action by healthcare professionals and organisations,

iSOLVE: the patient referral journey



ACTIVE INGREDIENTS OF ISOLVE IMPLEMENTATION INTERVENTION

- GP educational detailing
- Decision support tools and fall management tailoring
- GP computer systems
- Medication reviews
- Knowledge translation, education and upskilling of allied health professionals
- Establishing referral pathways
- Diffusion and dissemination of the iSOLVE model

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Implementation Science

STUDY PROTOCOL

Open Access



Integrated solutions for sustainable fall prevention in primary care, the iSOLVE project: a type 2 hybrid effectiveness-implementation design

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Abstract

Background: Despite strong evidence giving guidance for effective fall prevention interventions in community-residing older people, there is currently no clear model for engaging general medical practitioners in fall prevention and routine use of allied health professionals in fall prevention has been slow, limiting widespread dissemination. This protocol paper outlines an implementation-effectiveness study of the Integrated Solutions for Sustainable Fall Prevention (iSOLVE) intervention which has developed integrated processes and pathways to identify older people at risk of falls and engage a whole of primary care approach to fall prevention.

Methods/design: This protocol paper presents the iSOLVE implementation processes and change strategies and outlines the study design of a blended type 2 hybrid design. The study consists of a two-arm cluster randomized controlled trial in 28 general practices and recruiting 560 patients in Sydney, Australia, to evaluate effectiveness of the iSOLVE intervention in changing general practitioner fall management practices and reducing patient falls and the cost effectiveness from a healthcare funder perspective. Secondary outcomes include change in medications known to increase fall risk. We will simultaneously conduct a multi-methodology evaluation to investigate the workability and utility of the implementation intervention. The implementation evaluation includes in-depth interviews and surveys with general practitioners and allied health professionals to explore acceptability and uptake of the intervention, the coherence of the proposed changes for those in the work setting, and how to facilitate the collective action needed to implement changes in practice; social network mapping will explore professional relationships and influences on referral patterns; and, a survey of GPs in the geographical intervention zone will test diffusion of evidence-based fall prevention practices. The project works in partnership with a primary care health network, state fall prevention leaders, and a community of practice of fall prevention advocates.

Discussion: The design is aimed at providing clear direction for sustainability and informing decisions about generalization of the iSOLVE intervention processes and change strategies. While challenges exist in hybrid designs, there is a potential for significant outcomes as the iSOLVE pathways project brings together practice and research to collectively solve a major national problem with implications for policy service delivery.

Trial registration: Australian New Zealand Clinical Trials Registry ACTRN12615000401550

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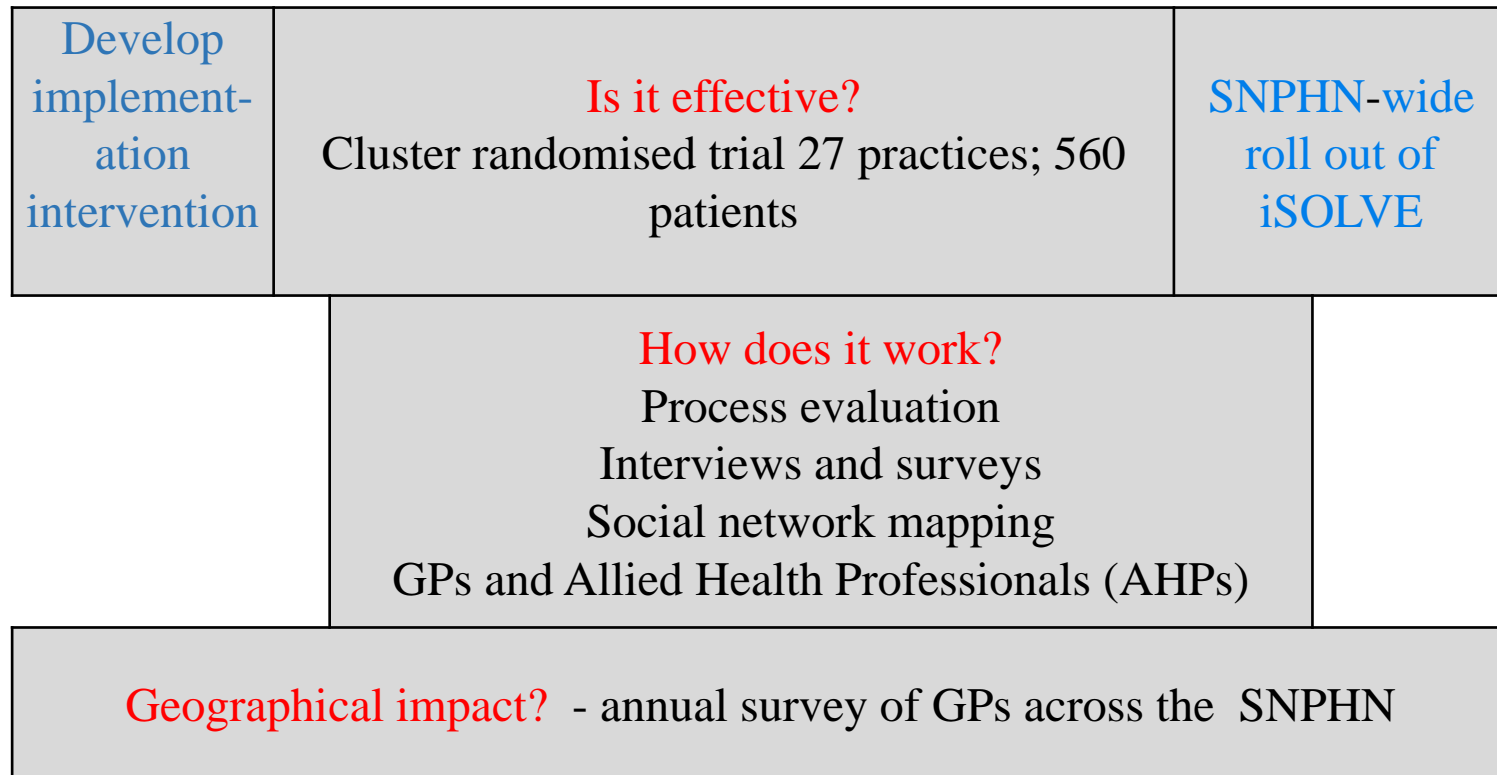
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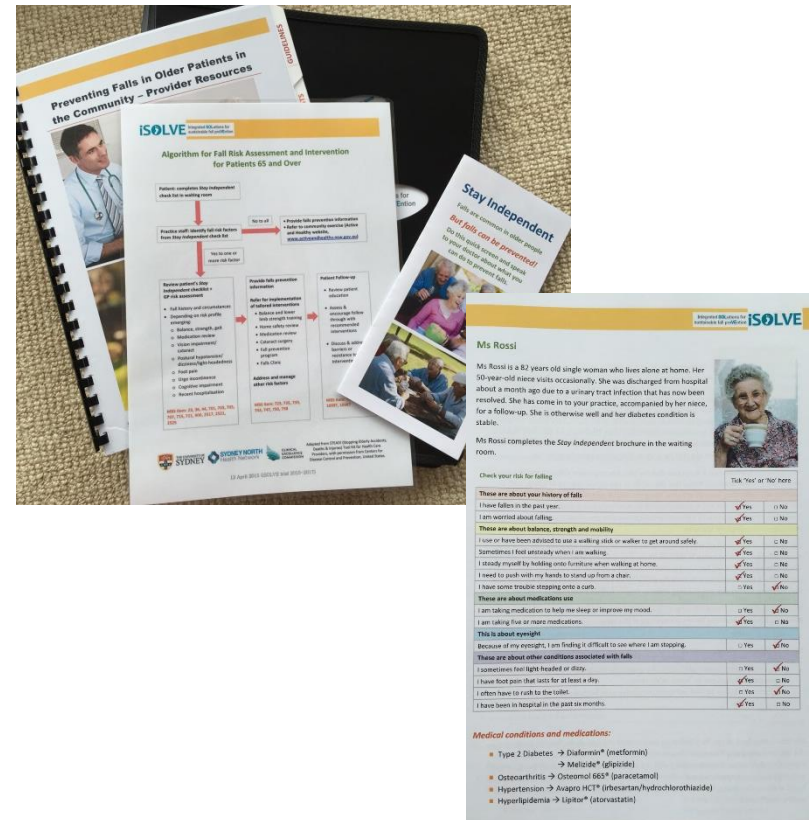
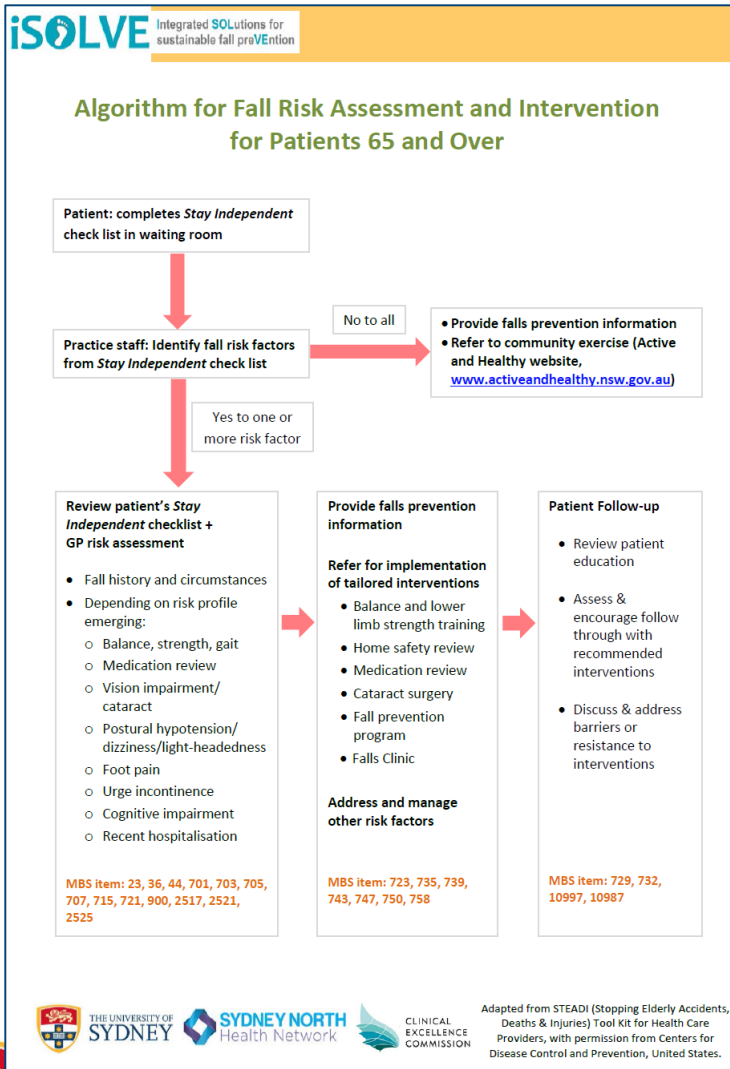
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Research methods: hybrid type 2 effectiveness-implementation study



iSOLVE 5 year development and evaluation phases

iSOLVE ALGORITHM AND GP RESOURCES



THE GP WORK FLOW

Identify Patients

- GP asks the question
- Practice nurse screen
- Annual reminders
- Letters (rct)
- 75 + health screen

Patient self assessment

- Paper or iPad
- 12 questions
- fall history
 - balance, mobility
 - medications
 - vision
 - Dizzy
 - Foot pain
 - Incontinence
 - Recent hospital

GP fall risk assessment

Asks additional fall history questions

Paper or GP software



iSOLVE Integrated Solutions for sustainable fall prevention

Check your risk for falling

Tick 'Yes' or 'No' here

These are about your history of falls		
I have fallen in the past year.	<input type="checkbox"/> Yes <input type="checkbox"/> No	Unsteadiness and needing support are signs of poor balance or weak leg muscles, which are major reasons for falling.
I am worried about falling.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
These are about balance, strength and mobility		
I use or have been advised to use a walking stick or walker to get around safely.	<input type="checkbox"/> Yes <input type="checkbox"/> No	Side effects from medicines such as drowsiness and dizziness can increase your chances of falling.
Sometimes I feel unsteady when I am walking.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
I steady myself by holding onto furniture when walking at home.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
I need to push with my hands to stand up from a chair.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
I have some trouble stepping onto a curb.	<input type="checkbox"/> Yes <input type="checkbox"/> No	Painful feet make it difficult to walk and may cause you to stumble or trip.
These are about medications use		
I am taking medication to help me sleep or improve my mood.	<input type="checkbox"/> Yes <input type="checkbox"/> No	Rushing to the bathroom, especially at night, increases your chances of tripping or falling.
I am taking five or more medications.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
This is about eyesight		
Because of my eyesight, I am finding it difficult to see where I am stepping.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
These are about other conditions associated with falls		
I sometimes feel light-headed or dizzy.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
I have foot pain that lasts for at least a day.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
I often have to rush to the toilet.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
I have been in hospital in the past six months.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Version © April 2020 (2020) v14 2020-2021. Checklist adapted from 11420 (Slipping, Tripping, Stairs, and Injury) Tool Kit for Health Care Providers, with permission from Centers for Disease Control and Prevention, United States.



iSOLVE Integrated Solutions for sustainable fall prevention

GP Fall Risk Assessment

This assessment checklist is to be used in conjunction with the patient's Stay Independent checklist.

Patient details/vicker:

Date: _____

Ask the patient about their fall history

Have you had any falls in the past year? Yes No

How many? 1 2 or more

Did you injure yourself? Yes No

What do you think is the cause of the fall(s)?

Are you worried about falling? Yes No

Date: _____

Risk factors

Balance, Strength and Gait

Using walking aid or have been advised to use walking aid Yes No

Unsteady Yes No

Weakness, balance and mobility problems Yes No

Medications

Sedatives, antidepressants or antipsychotics Yes No

5 or more medications Yes No

Vision

Severe impairment (macular degeneration, glaucoma, diabetic retinopathy) Yes No

Cataract formation Yes No

Postural Hypotension, Light Headedness or Dizziness

A decrease in systolic BP >20 mm Hg or a diastolic BP of ≥10 mm Hg from lying or sitting to standing? Yes No

Light-headedness or dizziness Yes No

Other Medical Conditions

Foot pain Yes No

Urge incontinence Yes No

Recent hospitalisation Yes No

Cognitive impairment Yes No

Checked updated from 11420 (Slipping, Tripping, Stairs, and Injury) Tool Kit for Health Care Providers, with permission from Centers for Disease Control and Prevention, United States.

19 April 2020 (2020) v14 2020-2021

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Integrated SOLUTIONS for sustainable fall preVENTion



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Management Plan: Tailoring risk to evidence-based interventions

- Automatic list of tailored interventions
- Fact sheets for patients

Referral pathways

- mapping of local fall services

Follow up

- GP visit
- clinical audits

iSOLVE Integrated SOLutions for sustainable fall preVENTion

Tailoring Interventions to Fall Risk Factors

The following is a guide that can be used to develop a tailored management plan for your patient.

Date	Risk Assessment	Intervention/Management	Referral To/Follow-Up
	0 fall in past year + no other fall risk factor	Refer patient to information on the Stay Independent brochure.	Community exercises (with balance component). www.activeandhealthy.nsw.gov.au
	1 fall in past year, or worried about falling	<ul style="list-style-type: none"> Group exercise with balance component (e.g. Tai Chi), or Fall prevention program (e.g. Stepping On). 	Community exercises (with balance component) or fall prevention programs. www.activeandhealthy.nsw.gov.au
	Problems with balance/strength/gait	Consider individual prescription for balance and lower limb strength exercise.	Physiotherapist or exercise physiologist for exercise prescription.
	2 falls in past year, or 1 fall + unsteadiness, or 1 fall + recent hospitalisation	<ul style="list-style-type: none"> Refer for individual prescription for balance and lower limb strength exercise. Review home safety. Consider Falls Clinic for high risk patients. 	Physiotherapist or exercise physiologist for exercise prescription. Occupational therapist for home safety assessment. Falls Clinic for high risk patients.
	Taking sedatives, antidepressants or antipsychotics, or 2 medications	Review indication, side effects and use of medication(s). Consider discussion with a pharmacist.	HMH pharmacist for comprehensive medication review.
	Severe vision impairment	Review home safety.	Occupational therapist for home safety assessment.
	Cataract(s)	Assess for cataract(s) surgery.	Ophthalmologist.
	Postural hypotension, dizziness, or light-headedness	Investigate underlying cause(s).	GP action: medical and/or medication management.
	Disabling foot pain	Assess foot pain. Consider foot and ankle exercises.	Podiatrist, physiotherapist, or exercise physiologist for exercise prescription.
	Urge incontinence	Investigate underlying cause(s).	GP action: medical and/or medication management.
	Cognitive impairment	Select fall prevention activity suited to patient's cognitive status.	Inform referred provider(s) of patient's cognitive status.



Referral to
...
for falls prevention



iSOLVE GP DECISION TOOL

iSOLVE GP decision tool used in our RCT

www.isolvefallprevention.com

GP INTERVIEWS: PRELIMINARY FINDINGS

25 GPs, 2 Practice nurses, 1 Practice manager

The ‘work’ of the intervention in practice

HOW?

- The iSOLVE system to identify and reduce risk
- Paper versus IT
- Training component: ‘so you’re educating yourself and the patient at the same time’
- Asking the question – the Mantra
- Expands scope of practice

GP INTERVIEWS: PRELIMINARY FINDINGS

The ‘work’ of the intervention in practice

WHO?

- patients with falls and near-falls
- Wider cohort - patients 65-75 years
- Move from RCT to routine practice

WHAT/CONTENT?

- Clear guidelines for practice nurse
- values iSOLVE “system” and resources. “Loved it”
- Serendipity findings

GP INTERVIEWS: PRELIMINARY FINDINGS

MOTIVATORS TO TAKE PART

- keep people out of hospital
- Relevant to patient population
- Other GPs in practice doing it
- patient readiness
- about 'real grass roots stuff'
- previous involvement in research

MOTIVATORS FOR NOT TAKING PART

- already have the knowledge and practice falls prevention
- no time for a project/ concerns with pace of work

GP INTERVIEWS: PRELIMINARY FINDINGS

FACILITATORS TO MAKING THE INTERVENTION ROUTINE IN PRACTICE

- Relevant resources, Clear guidelines
- A quick and easy ‘system’
- Clinical audit a prompt to follow up on patients
- Within scope of practice
- GP internalises the process “so you get it organised in your head”.
- Patient responses ‘nudged by research project co-ordinator

BARRIERS TO ROUTINISATION

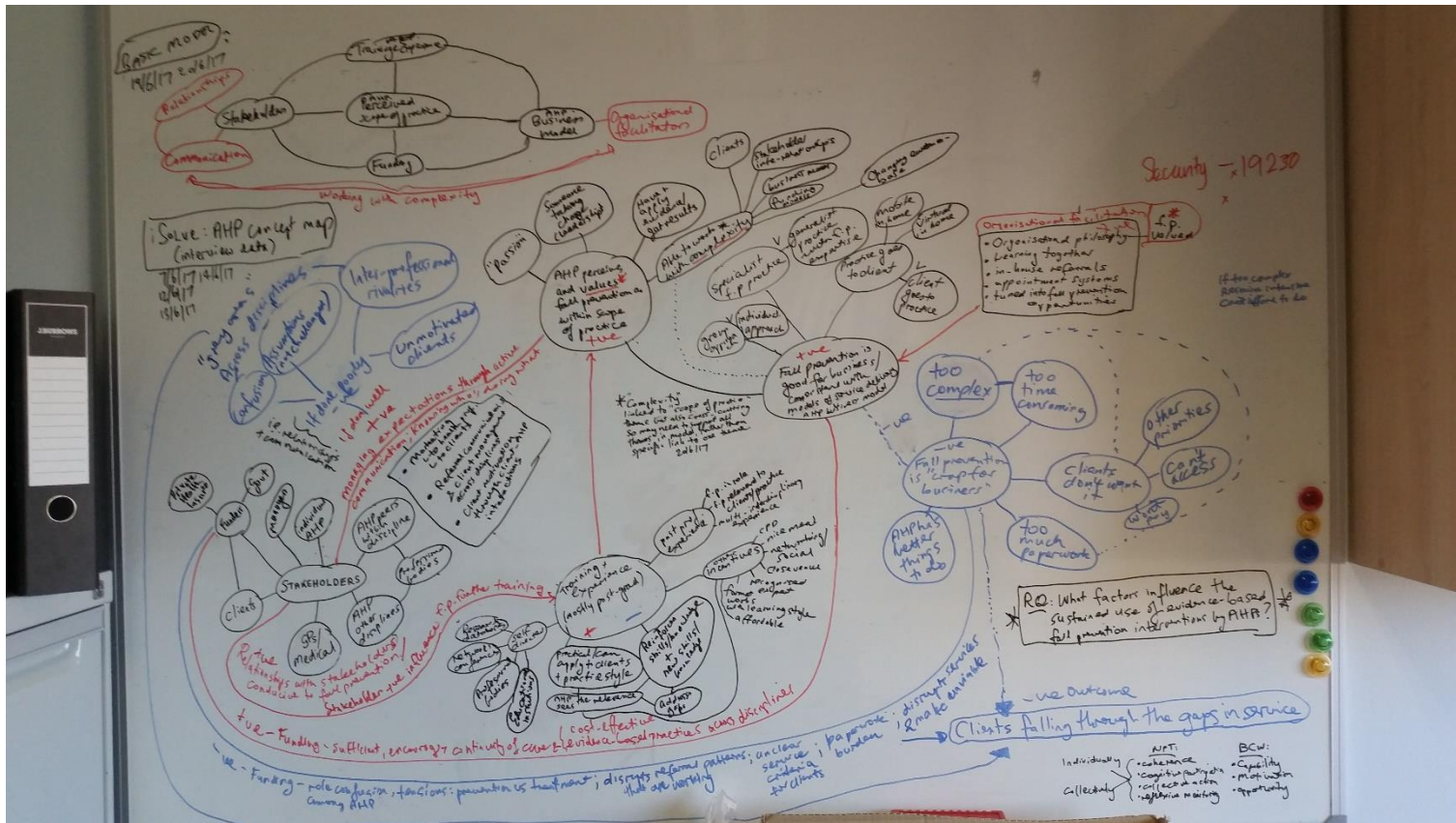
- IT issues with software
- GPs forgetting what to do over time
- Time/competing priorities
- AHP feedback to GPs ad hoc
- Access to community service
- Liked the AHP lists but tendency to remain with existing AH

GP INTERVIEWS: PRELIMINARY FINDINGS

REFLECTIONS

- Practice shift from screening to prevention
- Challenging assumptions
- Better chance of routinisation if internalised.
- iSOLVE as a ‘script’
- iSOLVE fall prevention as a “system”
- Paper system fine for those who do not like IT
- The role of practice staff - GP, PN, receptionist
- More aware of community services

AHP INTERVIEWS: PRELIMINARY FINDINGS



AHP INTERVIEWS: PRELIMINARY FINDINGS

a glimpse of allied health perceptions following workshops (n=15)



ISOLVE: NEXT STEPS



Iterative process –still learning, working with partners to see how implement in whole of area

Expand iSOLVE into other GP software so integral and familiar

Build ISOLVE into SNPHN Health Pathways

How to replace the ‘nudge’ effect from our research project co-ordinator

Web site for GPs/practice nurses– iSOLVE decision tool/training component to help internalise process (CPD)

Mapping of local services to GPs- how?

Sustainability of AHP and pharmacy training?

iSOLVE Working strategies document – to disseminate beyond

iSOLVE

Integrated **SOL**utions for
sustainable fall pre**VE**ntion

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CLINICAL
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COMMISSION

NHMRC Partnership Project Grant 1072790
2014 - 2019

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