Determining policy-relevant formats for the presentation of falls research evidence

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ABSTRACT

Objectives: Population modelling holds considerable promise for identifying the most efficient and cost-effective falls prevention measures, but the outcomes need to be in a readily useable form. This paper describes an iterative, collaborative process undertaken by researchers and falls prevention policy officers to develop such a format for falls prevention intervention evidence.
Methods: The researchers developed a draft template that underwent several iterations and improvements, through three collaborative consultations with policy officers.
Results: Although the researchers initially identified many key information needs, active engagement with policy officers ensured that policy requirements were met and that the value of the reporting formats for policy decision-making was maximised. Importantly, they highlighted the need to articulate underlying modelling assumptions clearly. The resulting formats, with complete data, were given to policy officers to inform their local jurisdictional policy decisions.
Conclusions: There is strong benefit in researchers and policy officers collaborating to develop optimal formats for presenting scientific evidence to inform policy decisions. Such a process can reduce concerns of researchers that evidence is not incorporated into policy decisions. They also meet policy officers' needs for evidence to be provided in a way that can directly inform their decision-making processes.

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1. Introduction

Policy responses are needed to address significant injury burdens and ensure that interventions are appropriately targeted and delivered to population groups [1]. Over recent years, there has been a significant move towards evidence-informed policy making, whereby the latest sci-

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entific evidence of intervention efficacy or effectiveness is used directly in decision-making processes [2,3]. There has also been recognition that increased collaboration between researchers and policy makers is needed to translate such evidence into policy processes [4–6].

Falls prevention is one of the areas requiring a significant policy response because of the ageing population and predicted increasing acute health and aged care service utilisation needs. As is the case in other regions [7], falls among older adults are a significant health burden in Australia [8–12] and their prevention is a national priority [13]. Approximately one in three people aged 65+ years fall each year, with 10% having multiple falls and >30% experiencing injuries requiring medical attention [14]. The rate of falls and associated injuries is even higher for older people in residential aged care and acute care settings [15].

Over the next 50 years, Australia and other developed countries will experience a significant increase in the proportion of the population aged 65+ years. The number of 65+ years old is projected to at least double in all Australian jurisdictions from 2001 to 2051 [16]. With more older people, there will be more falls and more falls-related hospitalisations [8,9,17,18]. This will place increased pressure on health service resources [19], and falls-related injury care and services will contribute significantly to this increased expenditure unless effective preventive programs are implemented.

The good news is that falls and their associated morbidity and mortality can be prevented [14,20]. There is now substantial evidence supporting effective interventions for preventing falls among older people living independently in the community. The recently updated Cochrane review concluded that programs likely to be beneficial include: exercise programs targeting two or more of strength, balance, flexibility or endurance; group-based Tai Chi; individually prescribed multi-component home-based exercise; professionally prescribed home hazard assessment and modification for those with severe visual impairment, or others at higher risk of falling; gradual withdrawal of psychotropic medication; prescribing modification program for primary care physicians; vitamin D supplementation for those with lower vitamin D levels; first eye cataract surgery; and cardiac pacing for fallers with cardioinhibitory carotid sinus hypersensitivity [21]. The evidence base is growing rapidly, with 40 current ongoing studies identified in the Cochrane review [20]. Australian commitment to falls prevention is shown by recent investment in policy development, practice networks and infrastructure. However, as in other health promotion arenas [22], the potential for the evidence base to translate into public health benefit has not been fully realised. The challenge now is to translate the scientific evidence about the most effective interventions into informed, population-level policy decisions and investments.

This paper describes a process used by a team of researchers and falls prevention policy officers across Australia to engage and work collaboratively. The context for the collaboration was the development of a population model (to be published elsewhere) for describing the likely impacts of introducing proven falls prevention programs for community dwelling older people. The population model combined efficacy results from randomised controlled trials (RCTs) with population statistics and other relevant research data to predict the impact of implementing certain interventions on falls incidence and fall-related hospitalisations, as well as the relative cost-effectiveness of these interventions. Full details of this model, including outcomes, are available from the authors.

The aim of the population model was to assist with prioritising investments in falls prevention portfolios across the country by identifying the most promising and cost-effective falls interventions [23]. Accordingly, modelling outcomes needed to be provided in a readily useable format to support policy and intervention funding decisions. Therefore, it was considered important that a collaborative and active engagement approach towards the designing and testing of formats for communicating model outcomes to policy officers be adopted. This paper describes this collaboration and highlights the key contributions of both researchers and policy officers to demonstrate how these groups can optimally interact to produce evidence-informed health policy.

2. Materials and methods

The agreed starting point was recognition that falls prevention was a priority goal for government health departments and that there was a real need for evidence-informed decisions to be made about how this issue could best be addressed. In doing so, the Considine definition of policy as action that employs government authority to commit resources in support of preferred values (cited in Ref. [24]) was adopted. A staged approach [24] was used to develop the output format because (a) it underpins the evidence-based approach to policy making; (b) it most closely aligns with the population health research paradigm used by the researchers; and (c) future incremental approaches towards policy development will need to be underpinned by a systematic and evolving evidence base. This approach is underpinned by the problem-solving model of using research to influence policy [2].

Although full policy development requires the participation of a number of key actors [2,6], only researchers (academics) and Australian state and territory government health department falls prevention policy officers were included in this project The researchers had collective experience in quantifying the magnitude of the falls injury burden, falls and falls injury epidemiology, interpretation of metadata on prevention benefits, and the costing of health interventions. Policy officers were Australian health department officers at the Commonwealth (national), state and territory level who were members of the National Injury Prevention Working Group (NIPWG). The Australian Population Health Development Principal Committee established the NIPWG to develop and implement priority actions to prevent falls. The NIPWG meets regularly to co-ordinate activity, exchange information, and share resources. Its members were identified as the key users of modelling outcomes to inform policy decisions, as they have a major role in recommending funding investments to senior management, the Director-Generals of Health and Government Ministers. Some, but not all,