

# Improving medication safety in older people through the 4Ms framework

V. Hope<sup>1</sup>, M. Paykel<sup>1</sup> and D. Nguyen<sup>1</sup> <sup>1</sup>Safer Care Victoria, <u>100klives@safercare.vic.gov.au</u>

# WHO flagship area

Polypharmacy

# Background

Age-Friendly Health Systems and the 4Ms framework were developed in the United States to ensure older people receive the best care possible and are not harmed by care, through implementation of an evidencebased framework; the '4Ms'. The framework incorporates What Matters, Medication, Mind and Mobility, which represent interdependent elements to structure interactions with every older person, irrespective of setting, health or care worker or the level of functional ability of the person.

# **Objectives**

To reduce harm for older people by assessing and acting on polypharmacy and potentially inappropriate medications (PIMs) through delivery of care consistent with the 4Ms.

### **Methods**

The framework was adapted from the American model by local subject matter experts, and tested by seven Victorian public and private health and residential aged care services from May 2021 to June 2022. To reduce harm from medications, teams were educated on and provided resources to 'assess' medications through screening of polypharmacy and PIMs at transitions of care, and to 'act on' medications through facilitating medication review and deprescribing where appropriate.

This was achieved through multi-platform learning, including webinars, in-person presentations, an online learning and collaboration platform, and coaching calls. Presentations were delivered by subject matter experts from the United States and Victoria, who also provided coaching and feedback to teams on safe and evidence-based change ideas.



Figure 1: Teams learning from local subject matter experts

A single source of truth document, the Guide to the 4Ms, was also adapted provided to teams. This included a comprehensive list of evidence-based deprescribing resources.



Figure 2: the Age-Friendly 4Ms framework

# **Evaluation**

Outcome and process measures were collected monthly. Across the initial phase, 627 patients were assessed for polypharmacy and PIMs. The monthly measures grew from 5 patients initially assessed in August 2021, to 41 patients in May 2022. The 4Ms were delivered as a set to 164 patients in 9 units across 5 health services. These units included acute wards, subacute wards and residential aged care facilities from metropolitan, regional and rural Victoria.

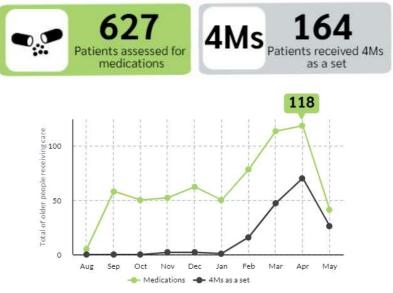


Figure 3: Number of older people assessed for medications throughout initiative

### Discussion

The pilot supports the feasibility of medication safety improvement in Victoria through the 4Ms framework. The results have led to an expansion as part of a statewide program to reduce harm and improve health outcomes. 32 teams from 18 health and residential aged care services across Victoria will integrate the framework in 2022-2023.