Summary Report

Building an Age-Friendly Indigo Health System

Final Report to Better Care Victoria
Acknowledgements

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Our considerable thanks to every person who attended Expert Teams and community meetings, often travelling considerable distances to attend. We thank you for your thoughtful assistance and commitment to improving care for older people.

Better Care Victoria enables and supports the identification, scaling and embedding of innovative practice across the Victorian health system. Their Innovation Fund made this work possible.

Ethics approval was obtained from La Trobe University.
Introduction

Australia has a fragmented health system so complex it is too difficult for most people to navigate. It assisted us well when we mostly required episodic, short-term curative care, however, with more of us living an extra thirty years, and doing so with chronic disease, we need a health and social care system that is integrated, provides person-centred care, and meets our needs.

In 2017-18, in Victoria, people aged sixty-five and over (who make up about fifteen per cent of the population) accounted for almost half of all hospital separations. While in hospital, older people suffer disproportionate harm, unrelated to the reason for their hospitalisation, with unnecessary admissions and longer lengths of stay. There is also evidence that age stereotypes in health and social care settings result in discrimination contributing to poorer health outcomes. Building capacity across the health system to achieve best practice in safety and quality of care for older people is essential.

The Indigo Consortium, and its partner agencies, worked collaboratively to develop an age-friendly approach to the care for older people. We identified two international, evidence-based approaches that can prevent decline, and maintain or improve the health and wellbeing of older people in hospitals, residential aged care and in the community: the Institute for Healthcare Improvement’s (IHI) 4Ms Framework, and the World Health Organization’s (WHO) Integrated Care for Older People (ICOPE) guidelines.

The IHI 4Ms Framework brings together four core elements—mentation, mobility, medications, and (what) matters—with nine specific, high-level, evidence-based interventions that are essential to the effective, efficient care of older people. There have been significant improvements in a range of outcomes in those settings where the 4Ms Framework was embedded into clinical practice:

- A significant reduction in in-patient falls
- A significant reduction in delirium
- An increase in patient and reduction in complaints
- Reduced avoidable hospitalisations and readmissions
- Increase in joy at work and staff satisfaction
- Increase in health service remuneration

The WHO ICOPE guidelines offer evidence-based direction and interventions to enable older people to maintain, slow or reverse any declines in their physical and mental capacities. The ICOPE guidelines provide health and social care workers with simple tools to detect early declines in physical and mental capacities, and to deliver effective interventions to prevent and/or delay progression.

WHO developed a package of tools, including a digital application, to help health and social workers integrate the care they provide around the needs of older people, along with technical assistance for service system to develop supporting policies and structures.

Both the WHO and IHI approaches offer integrated, person-centred care for older people. Both consolidate considerable high-level evidence on successful interventions to improve health outcomes in primary, community and hospital care. Both are essential to meet the health and social needs of older people across the continuum of care.

The IHI Age-Friendly Health System offers a simple, pragmatic framework for in-patient, health and residential aged care services that may redress the disproportionate harm experienced by older people because of our health system. It would benefit from examining the link between hospital and community care for older people. The IHI Age-Friendly Health System has not been tested outside of the United States, nor has it been implemented across a range of partnering health providers across the care continuum, or in a rural setting.
Building An Age-Friendly Indigo Health System

With funding from Better Care Victoria (BCV) we undertook a co-design project, informed by the National Health and Medical Research Council’s (NHMRC) advice on the development of guidelines. For the NHMRC, high quality, practical guidelines are based on systematic reviews of evidence, transparent development processes and decision making, and the judgement of evidence by experts, consumers and other end users.

We followed a four-step process:

1. Assessment of the IHI Age-Friendly Healthy System 4Ms Framework against local conditions;
2. Assessment of current approaches to the care of older people in the region against the draft Indigo Framework;
3. An economic assessment of the Indigo 4Ms Framework; and
4. Development of an implementation plan.

1. Assessment of the IHI Age-Friendly Healthy System 4Ms Framework Against Local Conditions

Academics from La Trobe University undertook an integrative review of Australian rural health research against the IHI 4Ms Framework. While there were limitations in the research identified, the review did find evidence for all four core elements. The strongest evidence was in relation to medication (level II study), while most evidence focussed on mobility and mentation. There was less evidence for ‘what matters’.

Additional evidence was identified that was not an immediate ‘logical’ fit with the IHI 4Ms Framework including monitoring for infection, continence and screening for social support. The latter two are present in the ICOPE guidelines.

A meeting of point-of-care clinicians from a range of disciplines and settings, and community members, considered the IHI 4Ms Framework and the evidence from the academic review. They endorsed IHI 4Ms Framework as relevant and useful for local conditions with a number of changes to reflect the particular health and social needs of older people in an Australian rural health setting.

These changes matched components of the WHO ICOPE guidelines. A first draft of an Indigo 4Ms Framework was developed on the basis of the academic review and clinical judgement.
2. Assessment of Current Approaches to the Care of Older People in the Region Against the Draft Indigo Framework

The second step of the development process sought to identify existing interventions or models of care that fit with the draft Indigo 4Ms Framework operating across the region.

La Trobe University undertook a desk-top analysis of accreditation, policy and standards related to the care for older people, and in-depth interviews with clinicians to identify existing models of care. The review found that the regulatory framework and local models of care strongly aligned with the draft Indigo 4Ms Framework. However, while there was agreement on assessments for the core elements, there was less confirmation of evidence-based actions.

A modified Delphi study and meetings with older people, policymakers and experienced, knowledgeable clinicians from the acute, sub-acute, residential aged care, primary and community care sectors, identified and agreed on high-level interventions for each of the four core elements that would be appropriate to every clinical encounter with an older person, irrespective of the setting.

The Indigo 4Ms Framework has the endorsement of clinicians and consumers.

The Indigo 4Ms Framework

The Indigo 4Ms Framework combines the great strengths of the IHI 4Ms Framework with WHO ICOPE guidelines to deliver better care for all older people living in rural and regional Victoria.

The Indigo 4Ms Framework brings together the essential elements of best care: What matters, medications, mobility and mental wellbeing. These four elements are considered as a whole in every interaction with every older person. Actions associated with each element are provided in Appendix 1.

The Indigo 4Ms Framework gives structure to the care of older people, irrespective of the setting or the level of functional ability of the person. This single framework can be used for health assessments and prevention at the community level to foster healthy ageing, across the care continuum, to organising care for people with significant decline in capacity. The Indigo 4Ms Framework is robust enough to maintain a common identity across all points of care, and plastic enough to adapt to local needs.

The Framework does not replace existing models of care or care pathways, rather it operates as an heuristic, a mental strategy or ‘rule of thumb’, converting large amounts of complex, high-level evidence from research, practice and policy into a quick mental reference through which health and social care workers can structure and prioritise their care.
3. An Economic Assessment of the Indigo 4Ms Framework

The third step in the development of an efficient, effective Indigo 4Ms Framework was to examine its potential to bring cost efficiencies to the health system, while improving health outcomes.

Health economists at La Trobe sought to examine the broad economic impact of implementing the Indigo 4Ms Framework. Through a ‘sliding doors’ scenario approach, reflective of the everyday experiences of staff and patients in our region, they examined the differences between current and proposed care, and the impacts these have on both costs and the outcomes experienced by patients.

Across all three cases, the Age-Friendly scenario resulted in cost savings, both in healthcare (medical, allied health and aged care) and other (mainly lost productivity) costs to a total of $80,505, along with improved social and health outcomes for the individuals.
4. Development of an Implementation Plan

The final step in the Building an Age-Friendly Indigo Health System project was the development of a feasible implementation plan for the region. Full agreement on the implementation plan was curtailed by the profound and immediate impact of Australia’s worst bushfires and the COVID-19 pandemic.

Despite the considerable impact of both, the project identified a range of implementation strategies that can transform health care for older people without requiring, or waiting for, structural, financial, legislative or workforce reform. It does require the power of action through leadership, organisational support and courage. Beechworth Health Service, Northeast Health Wangaratta and Gateway Health find the Indigo 4Ms Framework compelling and have made explicit commitment to this work.

Therefore, the implementation plan is, necessarily, without a governance structure or the specific settings, programs or practices that will be involved. The plan is grounded in implementation science with a pragmatism derived from understanding the realities of leading change in regional and rural health services.

Once agreement has been reached on when and by whom, this implementation plan can guide people through the stages and strategies in the implementation process. It has been designed to assist health services’ executives, policymakers, clinicians and consumers plan, initiate and evaluate the implementation activities necessary to put into action the Indigo 4Ms Framework.

There are four stages to the Indigo 4Ms Framework Implementation Plan:

- Establish structures to support implementation
- Plan and prepare local settings
- Initiate and refine
- Monitor and evaluate

Implementing the Indigo 4Ms Framework requires a sound structure. There is wisdom in the phrase, ‘good structure increases the likelihood of good process, and good process increases the likelihood of good outcome.’

The Implementation plan recommends a collaborative governance structure with academic involvement and the creation of an independent Implementation Support Team.

The next two stages—Plan and prepare, and Initiate and refine—are the process stages which will employ the IHI Model of Improvement at local sites. The fourth stage—monitoring and evaluation—will furnish the evidence for the outcomes of both the structure and the process of implementation. It is imperative that the structure, and monitoring and evaluation processes, are in place prior to implementation.

Each stage of implementation plan comprises a rationale, and a list of strategies clustered in line with the Expert Recommendations for Implementing Change project to ensure consistency in language and conceptual clarity. No timelines are given for this Plan. Evidence suggests it takes two to four years for a well-structured intervention to be implemented.
Conclusion

In late 2018, the Indigo Consortium commenced an ambitious project to codesign an age-friendly approach to the health and social care for older people that could be implemented in the region. The Better Care Victoria (BCV) Innovations Fund financed the Consortium to establish a collaborative partnership with clinicians, older people, policymakers and health service executives to realise this vision.

The Indigo 4Ms Framework, if implemented, has the potential to prevent, slow or reverse declines in older people’s capacity, reduce the disproportionate harm older people experience because of our health system, bolster staff morale, improve the capacity of the health system to care effectively and efficiently for the majority of its patients, and reduce costs.

Following the NHMRC Guidelines for Guideline development process we have confidence that the resultant Indigo 4Ms Framework offers high quality, evidence-based, guidance to older people, policymakers, clinicians and health service executives on how to deliver care that may prevent decline, maintain and/or improve the health and wellbeing of older people. It enables health and social care workers to provide health assessments and prevention from the community level through to highly technical acute care settings.

The collaborative partnership approach afforded those involved with a unique opportunity to step away from their pressing daily demands to reflect more deeply, and with a broader perspective, on how to break the persistent, expensive cycle of interventions in the care of older people—a recognition of poor health outcomes for older people, investment in research and development in one component of the system, piecemeal reform, and a return to business as usual. Working regionally, enabled people from multiple services and disciplines and alongside the wisdom of older people, to create a collective vision for transformative care.

In this work we were reminded of the continuing, pervasive negative attitudes to ageing and older people. In our health and social care system, stereotyping (how we think), prejudice (how we feel) and discrimination (how we act) towards people on the basis of their age, has particularly deleterious effects on the health and well-being of older people. Those impacts extend to the demoralisation of the staff who do provide a high level of care to older patients in a health system biased against them.

We are all living longer. On average, Australians are living thirty years longer than we did a hundred years ago. For the first time in our evolutionary history, five generations from one family are alive together. Longer, healthy lives brings great personal, social and economic benefits. Good health and positive attitudes to ageing and older people are required to realise the benefits of longevity.

Evidence suggests that the cost of caring for older populations may not be high if changes are made to foster healthy ageing.\textsuperscript{13} The Indigo 4Ms Framework can deliver integrated health and social care that is effective, efficient and meets the needs of older people.

Our single recommendation is to implement the Indigo 4Ms Framework.
## Appendix 1: The Indigo 4Ms Framework Core Elements & Key Actions

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<tr>
<th>Aim</th>
<th>Core Elements</th>
<th>Key Actions</th>
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<tbody>
<tr>
<td><strong>WHAT MATTERS</strong></td>
<td>Provide person-centred assessment and care planning</td>
<td>• Ask questions addressing ‘what matters’ a minimum of once per stay and do not only address end-of-life or advanced care. • Document ‘what matters’ clearly at the front of medical records in paper and electronic forms. • Describe and align care plans to responses to ‘what matters’ questions. • Routinely collect information on patient/person-reported outcomes and experiences.</td>
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<td>Assess and understand what matters including individual values, priorities, goals and care preferences, and social context. Act on what matters for current and future care, including end of life.</td>
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<tr>
<td><strong>MEDICATIONS</strong></td>
<td>Eliminate unnecessary, ineffective and duplicative medicines</td>
<td>• Prescribe appropriate medication and de-prescribe and adjust doses to be age-friendly. • Conduct regular medication reviews by pharmacist. • Reconcile all medicines at all transitions in points of care. • Reviewed medication post-falls incident. • Focus medication reviews on psychotropic medicines and those associated with geriatric syndromes.</td>
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<td>Screen and assess for high-risk medications. Rational prescription.</td>
<td>• Screen for functional mobility and falls with validated tools at admission. For those deemed as at risk of falls and/or with evidence of dementia/delirium, screen at regular, identified intervals according to care plans and care need changes. • Assess the need of a gait aid to optimise mobility, review every monthly for adjustments or alternatives. • Develop personalised mobility plans including multimodal exercises for all older patients/people. • Implement personal mobility &amp; exercise plan. • Ambulate in-patients/residents 3 times a day unless contrary to care. • Ensure in-patients/residents are out of bed or leave room for meals. • Recommend home assessments and modifications for all older people at risk of falls. • Develop community mobility groups and promote ownership of the program.</td>
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<td><strong>MOBILITY</strong></td>
<td>Improve musculo-skeletal function and mobility</td>
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<td></td>
<td>Screen and assess locomotor capacity. Provide an individualised mobility plan including multimodal exercises. Create a social and physical environment that enables mobility.</td>
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<td><strong>MENTAL WELLBEING</strong></td>
<td>Promote psychological wellbeing and prevent cognitive impairment</td>
<td>• Maintain oral hydration at all times. • Screen for nutrition and diet using a validated tool. • Dietician review of all people at risk of under nutrition. • Provide non-pharmacological interventions to support sleep in hospital/residential care settings. • Screen vision and hearing annually as part of general health check-up for timely identification and management of vision and/or hearing loss. • Ensure older patients/persons have their personal adaptive equipment. • Screen for urinary and faecal incontinence as part of assessments using validated tool. • Offer pelvic floor training to all older women with urinary incontinence. • Offer prompt voiding to all older people with cognitive impairment to manage urinary incontinence. • Offer psychological intervention, training and support to family members or informal caregivers of care-dependent older people. • Screen and assess cognition and depression using validated tools. • Assess for delirium using a validated tool every 12 hours when in hospital. • Orientate in-patients to time, place and situation every nursing shift. • Review medication to remove possible pharmacological cause of delirium. • Assess all in-patients for delirium using a validated tool every 12 hours. • Offer cognitive stimulation to all older people with cognitive impairment with or without a diagnosis. • Offer brief, structured psychological interventions to all older people with depressive symptoms. • Provide information to older people and/or their carers on the prevention and management of depression and cognitive impairment.</td>
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<td></td>
<td>Assess and ensure adequate hydration, nutrition and sleep. Screen, assess and manage vision and hearing. Screen, assess and manage incontinence. Assess and support social connections &amp; carers. Screen, assess and manage cognitive decline and depression.</td>
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References


7. See https://www.who.int/ageing/health-systems/icope/en/


12. Ibid.
