Victorian Healthcare Association

Vision • Value • Voice

Unblocking the system

An issues paper on the causes of, and potential solutions to, ambulance offload delays in Victoria

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Contents

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Executive summary

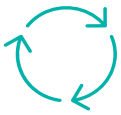
The Victorian health system is under pressures, as it continues to operate during the COVID-19 pandemic as well as responding to its impacts and aftermath. Our public health services continue to deliver high-quality care, while they are facing increased presentations and increased patient acuity, at a time of significant workforce shortages.

One of the most public displays of this pressure is ambulance offload delays – more commonly referred to as 'ramping'. This symptom of system stress has attracted significant press and public attention, with a lot of focus on ambulances and health services – despite many of the contributing factors being outside their control.

In response to this issue, the VHA has developed an issues paper, which aims to highlight potential opportunities that can be incorporated into a system response. The paper identifies policy initiatives that could support the Victorian response to ambulance ramping, based on international and domestic developments and experiences. The identified opportunities focus on the patient pathway to ensure a whole-of-system response:

Diversion

- Prevention and early intervention
- Triage

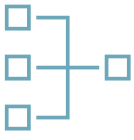


Patient flow

- Admissions
- Discharge and acute care in the community

Community care

- Greater care in the community



System capacity

- Workforce
- System planning

This paper is intended to be a starting point to generate further innovation and action by sector policy leaders and decision makers. The identified opportunities are listed in Appendix A.

Introduction

There has been increased press coverage in recent months on the issue of ambulance ramping in Victoria. Ramping refers to situations where ambulances are delayed in offloading patients to hospital emergency department (EDs) that have reached capacity. The ambulance and paramedics must wait at the hospital to ensure the patient continues to receive critical care. These delays lead to fewer ambulances being available to reach Victorians that need urgent medical attention.

The VHA has developed this issues paper to examine compounding issues in the health system that lead to ambulance ramping and highlight potential policy solutions.

Victoria's health system has been under considerable and sustained stress since the onset of the pandemic – and this pressure shows no sign of diminishing. Drawing on the approach utilised to develop the VHA's white paper on pandemic preparedness, *Stabilising the system: Supporting Victoria's public health sector to manage sustained COVID-19 demand*, this issues paper focuses on building on existing strengths and solutions to support the health system response in the coming months.

About the VHA

The Victorian Healthcare Association (VHA) is the peak body supporting Victoria's public and community health services to deliver high-quality care. Established in 1938, the VHA represents Victoria's diverse public healthcare sector, including public hospitals, aged care and community health services.

As well as providing a unified voice for the sector, the VHA delivers value for its members by offering tailored professional development programs, networking opportunities, and informative events. The VHA advocates on behalf of its members on sector-critical issues by engaging and influencing key decision-makers involved in policy development and system reform.

What is the issue?

Ambulance offload delays

While ambulance offload delays may be perceived as a simple issue relating to ambulances and EDs, it is symptomatic of broader, interrelated challenges occurring across the health system; it occurs in health systems that are operating over capacity.

One of the key issues affecting ramping is 'access block'. Access block is defined by the Australasian College of Emergency Medicine (ACEM) as where patients who have been assessed in the ED and require admission are delayed from leaving the ED for more than eight hours due to the lack of an inpatient bed.[1]

Access block is a whole-of-health-system issue – when one part of the system is overloaded, demand builds up in other areas. While EDs are facing the backlog, as they are one of the most accessible parts of the healthcare system, it stems from hospitals and community health services being overloaded or inaccessible. This is because of a lack of support or capacity in the wider system.

When patients cannot be discharged into the community, other patients cannot be admitted, which leads to patients waiting in EDs, resulting in access block and, most likely, ambulance waiting at hospitals as patients cannot be offloaded into the ED.

Access block is directly connected to ramping, but they are both impacted by wider systemic issues.

Reduced primary care, increased acute demand, workforce shortages, a lack of beds and a lack of community care options are factors that can contribute to offload delays, as they can impede patient flow. If fewer people can be treated in the community, they attend EDs; if EDs are facing greater acute demand, it is harder to process patients.

It is the range of issues associated with ramping that makes it such a hard issue to address systematically. Each service affected by ramping is likely to be facing similar, but slightly different, factors that are contributing to the issue.

> Idle ambulances may be the defining image of ramping, but they are a symptom of deeper, systemic issues.

The concern about ramping is that there is an increased risk of poor outcomes for patients, as there is delayed access to vital care. This could either be through delayed admission to emergency care, or someone being unable to receive paramedic care due to a lack of ambulance availability.

And the data supports this. A recently published study by Ambulance Victoria (AV), Monash University, Royal Melbourne Hospital, Alfred Health and the Baker Heart Research Institute found that longer ambulance offload times are associated with a greater risk of death and ambulance re-attendance for chest pain ED presentations.[2] Similarly, research has also indicated that access block has an impact on mortality.[3]

And these poor outcomes can also reinforce the pressure on the system – it has long been established that ambulance offload delays contribute to longer lengths of ED stay, putting additional strain on EDs.[4]

Ramping in Victoria

Ramping is not a new issue in Victoria. The 2008 Victorian Auditor General's Office (VAGO) report *Managing acute patient flows* examined the effectiveness of patient flow in Victorian public hospitals, and made a series of recommendations relating to discharge and transfer of care. Similarly, VAGO found issues in 2016 related to discrepancy in performance around patient discharge. And while initiatives to reduce length of stay were being supported – a factor in access block and ramping – they were not universally applied.

Victoria has attempted to install demand and access strategies to mitigate the impact of ED overcrowding and ambulance offload delays since the early 2000s, back when services were facing under 200,000 presentations in a quarter; now the system is edging closer to 500,000.

While it existed earlier, ambulance performance, including ramping, became a major issue in 2014 and that year's state election. Since then, there have been numerous attempts to address the issue (as described in the following table).

Process	Year	Description
Improving emergency access collaborative[5]	2016	Eleven health services collaborated to address constraints in patient flow. Northern Health reduced average ambulance offload times by over 5.5 minutes and ambulances spent 2,570 more hours on the road over a year.
Patient flow partnership[6]	2017	The collaborative further evolved, with 15 participating health services looking to remove blockages to support ED performance. Peninsula Health developed a simple checklist to identify patients suitable for transfer to the sub-acute ward, which reduced acute length of stay by more than 2.5 days.
Non-Emergency Patient Transport Regulations 2016[7]	2016	The legislation, which regulated the use of non-emergency patient transport vehicles, included provisions designed to help reduce ramping.
The Travis Review[8]	2015	The Review was an election commitment, which looked at care capacity in the public health system, including EDs. It made recommendations around performance monitoring, innovation and infrastructure, and led to a $200 million Hospital Beds Rescue Fund to increase beds in EDs and wards.
AV reform	2015 –	AV introduced a range of changes,[9] including a new model of care that involved a second level of triage to move about 15 per cent of cases away from ambulances to telephone advice or dispatch alternative services. By 2016–17, AV reported its best response times in seven years.[10]
AV-health sector collaboration	2015 –	AV also engaged with the broader health sector to improve hospital transfer time performance, including: the use of Hospital Ambulance Liaison Officers; a trial of dedicated Patient Offload Teams; and direct health service engagement.[11] [12]
AV investment	2015 –	AV has also seen significant investment in personnel and facilities, including a five-year $500 million investment in 2016 to hire more paramedics and build new ambulance stations.[13] This investment has continued and increased during the pandemic response.[14]
Pandemic changes	2021 –	Innovation has increased to mitigate ramping, with further initiatives introduced, including increased hiring of paramedics; greater telemedicine; and AV staff in hospitals.[15]

The primary focus of all these initiatives has been on addressing the symptoms of the issues – increasing ambulatory capability and capacity, streamlining ED processes and increasing bed capacity. These supported patient flow and ambulance transfer times, as highlighted by the improved performance between 2015 and 2021, which reduced incidents of ramping. Yet, they have not solved the structural issues that contribute to ambulance offload delays, which are now being exacerbated by the pandemic.

What is driving the issue?

Victoria is facing a range of pandemic pressures

More than two years on from the start of the COVID-19 pandemic, most parts of public life have returned to almost 'normal'. However, Victoria's public health services and AV are caught between two worlds – having to continue to operate in the midst of a pandemic as well as facing the impact that the pandemic has already had on staff and patients. While services and their staff continue to do an excellent job, care delivery is affected by these pandemic pressures, although they often stem from pre-existing issues.

Workforce shortages

The state is struggling to ensure that public and community health services have the level of workforce required to meet care demand. This shortage has been caused by a number of pressures, including:

- existing workforce shortages prior to the pandemic
- staff being unable to work due to COVID-19 infection or risk
- staff burnout stemming from increased working pressure, compounding the impact of shortages
- increased competition for staff for other health jobs, including state-run vaccination programs
- struggles to bring international workers into the country due to border closures.

These pressures and the resulting lack of workforce mean that services are at times struggling to deliver legislated workforce levels and open up beds.

Increased demand

Victoria is seeing increased demand for nearly all aspects of care, which is impacting the ability of the system to meet the level of community need. The 2021 ABS Census has highlighted that over two million Victorians have a long-term health condition. This increased demand stems from:

- COVID-19 hospitalisations
- delayed elective care stemming from the pandemic and lockdowns
- increased patient reticence at times over the last two years to access care.

Combined with the normal growth in demand, this means that an increased number of people are trying to access care, with demand returning to – and in some cases exceeding – pre-pandemic levels.

Increased acuity

The state is also experiencing higher patient acuity, alongside this rise in care demand. Similar to the increased demand, this is due to:

- acutely unwell COVID-19 patients
- delayed elective care stemming from the pandemic and lockdowns
- a lack of primary, community and preventive care during the last two years
- deferral of care due to the focus on priority care during the pandemic.

These factors have an impact on patient acuity, which increases the resources required to deliver effective treatment, further increasing the pressure on the health system.

These three issues are compounding each other, leading to increased pressure on the health system, services and staff.

Ramping is increasing due to these pressures

While structural issues existed prior to COVID-19, the current incidences of ambulance ramping are presenting as a symptom of these increased pressures on the health system.

Prior to the pandemic, AV and health services were consistently ensuring that approximately 80 per cent of ambulance patient transfers occurred within the target 40 minutes. Since the start of 2022, Victoria has experienced seven 'code red' calls and nearly weekly 'code orange' calls, at times seeing 99 per cent of the ambulance fleet being unavailable.[16] [17] [18] [19]

Code orange or red warnings indicate to the public that people needing non-emergency care should contact Nurse-on-Call services, their GP or a pharmacist, or find alternative transport to hospital, as there are expected delays for ambulance services.

In the past, these 'code warnings' have largely used for one-off emergency events, such as bushfires. Yet, these escalations have been used increasingly since 2021 – code warnings were issued nine times over the course of 2019 and 2020, but were utilised 27 times in just four months in 2021.[20] Sadly, this pressure on the system has an impact on patients – 21 people have reportedly died due to delays in the ambulance and health system since December 2021.[21]

These situations highlight times of peak system stress, and have been accompanied by widespread reporting of ramping instances taking place across the state since at least mid-2021.

Health system performance indicators continue to highlight how much pressure the system is under. For instance, the most recent performance figures on ambulance transfers into EDs within 40 minutes (57.52 per cent), a performance metric that closely tracks with ramping, were over 20 points down on three years ago (81.06 per cent).[22]

The evidence of this increased pressure is highlighted by other metrics, including:

- The state-wide median ambulance-ED transfer time has increased by over 30 per cent (10 minutes) in 18 months.[23]
- Less than two-thirds of patients have been treated within the clinically recommended time in EDs since the start of 2021, dropping to the recent record low of 58.97 per cent.[24]
- The number of Category 2 ED patients treated within the clinically recommended time in the April – June 2022 quarter is just above half (51.06 per cent), over 20 percentage points down on three years ago.[25]
- The percentage of ED patients with a length of stay less than four hours (51.96 per cent) is down nearly 20 points on the performance two years earlier (70.39 per cent).[26]
- The eight-hour ED transfer target for mental health presentations was only achieved for 44 per cent of cases since the start of 2022.[27]

All these measures, while not perfect indicators for ramping and its causes, highlight how stressed the system is. Public health services and AV, and their staff, do continue to provide high quality care despite the pressure they are under – with patients continuing to highly rate their experience in the system. But, further support is required for the Victorian public health system to address these current pressures and continue to deliver the high level of care that Victorians deserve.

And this has been recognised by the Victorian Government, which recently announced $162 million in funding for initiatives to help address these pressures. These initiatives continue to largely focus on the symptom, with the initiatives focusing on EDs and ambulances, but signal how important this issue is.

Ramping is an issue interstate and overseas

Ramping is not unique to Victoria, or, indeed, Australia. Across all Australian jurisdictions, there have been reported instances of ramping in recent months – and no jurisdiction is meeting timeframe targets for ambulance to ED transfer.

In South Australia, ambulance ramping was an important public issue in the 2022 state election, while it has featured heavily in media reporting in Western Australia and Queensland.[28]

And national data supports this being a national issue, with an increasing emphasis on EDs for care. From 2011–12 to 2018–19, emergency department presentations in Australia increased by 14 per cent, an annual average of 3.2 per cent, while admissions from EDs into an inpatient ward increased by 25 per cent.[29]

Furthermore, jurisdictions across the world are facing similar issues – both Canada and the United Kingdom (UK) have grappled or are grappling with delayed ambulance offloading post-pandemic.[30]

There have been 526 instances where ambulances were not available in the Canadian capital, Ottawa, in the first half of 2022, while a report in 2021 estimated that up to 160,000 patients could be coming to harm in England due to offload delays.[31] [32]

How can the health system respond?

While ramping is an end-point symptom, the entire health system is under pressure – and all the patients along the healthcare pathway are impacted.

Solving the ambulance offload issue will require a whole-of-system approach; this is supported by a review of existing literature, which highlights the need for a whole-of-hospital approach, and the limited value in simply increasing bed supply.[33] [34]

What is clear is that ramping is not the fault of the services, and the staff, involved – instead they need greater support from the system.

The following section provides series of potential policy ideas that can be incorporated into a whole-of-system response, broken down into the different parts of the healthcare pathway. These are based on existing research and policies. Every intervention will not be viable for every service, but each intervention offers an opportunity that should be considered. This approach takes inspiration from *Improving Access to Emergency Services: A System Commitment*, a report from 2005 in Ontario, Canada.

Diversion

Prevention and early intervention

One method to reduce ramping is to reduce demand – with prevention and early intervention vital to ensure patients receive care before they need ambulances, EDs or an in-patient bed.

This has been a key focus for the growth of integrated care in the UK National Health Service (NHS) since 2013, represented in key strategic documents and direction, culminating in the recent *Health and Care Act 2022*.[35] While the impact of population-based integrated care programs on emergency hospital use has proven limited to quantify so far, there are some of specific integrated care initiatives that have been successful at reducing emergency hospital use – even in the short term.[36] [37] Most notably, enhanced support in care homes was able to achieve reductions of up to 40 per cent in emergency admissions and up to 43 per cent in Accident & Emergency (A&E) attendances in residential care home residents.

'In-reach' programs and services, similar to the above initiative, already exist in Australia through some services such as Hospital in the Home, home monitoring, and other outreach services to residential aged care facilities. They offer a key opportunity to reduce a source of demand on care and beds – and were a recommendation from the Royal Commission into Aged Care Quality and Safety.[38]

This is a particularly salient point for the Victorian public health system, which is the largest provider of public sector residential aged care (PSRAC) facilities – yet residents need to be admitted or transported to the health service to receive care. Of 159,851 admissions for ambulatory care sensitive conditions, which are thought to be avoidable through public health interventions and early disease management, over 40 per cent were for Victorians aged over 70.[39]

While integrated care has struggled to deliver on its promise in the UK, this can be partly attributed to a lack of support and investment – prioritising this aspect of care is likely to support a long-term method to reduce the need for emergency demand.[40]

Taking this approach offers an opportunity to target systemic causes of poor health outcomes. For instance, the NHS in England is prioritising health inequities as part of its pandemic recovery, with plans focusing on

evaluating waiting lists by ethnicity and disadvantage, and accelerating preventative programs that proactively engage those at greatest risk of poor health outcomes.[41]

Victoria utilised a similar approach during the pandemic, establishing a High-Risk Accommodation Response program to support some of the most vulnerable Victorians and provide access to care in their own homes.

The program engaged those most at-risk of COVID-19 infection and hospitalisation, and connected them with appropriate support and care to help them stay well and out of the acute care system. Funding for the program was not renewed in the Victorian Budget 2022-23, but it has since been continued in a reduced format through a new Community Connectors program.

Ontario, Canada employed a similar program using community paramedics, which has delivered significant benefits, including reduced emergency calls and cost effectiveness.[42]

Current research suggests that prevention and early intervention initiatives are unlikely to have an impact on access block as low-acuity primary-care-type patients attracted to these services are not a significant proportion of the workload for most EDs and are unlikely to require admission.[43] This is supported by the rise in higher-category ED presentations (Category 2 and 3) in Victoria in 2021, compared to lower category presentations (Category 4 and 5). While this may be true, increasing this aspect of care will help with care sustainability – and a long-term approach to this issue. This was recognised in the recent National Preventative Health Strategy, which calls on the Commonwealth and state governments to increase prevention health funding to five per cent of the total health expenditure.

Potential opportunities

Earlier intervention for older Victorians – Expand 'in-reach' services to deliver care and support in residential aged care facilities.

Enable care in facilities – Enable public health services to deliver care in their associated PSRAC service, to reduce the need for transfers.

Target 'at-risk' Victorians – Establish a program that enables registered and integrated community health services to support Victorians at risk of hospitalisation.

Increased prevention funding – Increase investment in public health initiatives, in line with the National Preventative Health Strategy's requirement to increase prevention funding to five per cent of health expenditure.

Triage

While the shortages in the paramedic workforce have received media attention and significant investment, which should help to overcome ramping, there is the potential to use or expand the broader paramedicine workforce to deliver care in the community to reduce the need for hospital visits – which could be quicker and lead to fewer paramedics being delayed at EDs.

In Ontario, which is facing similar issues, there has been consideration of increasing the use of paramedicine, including a 'treat-and-release' model, funding an offload nurse, and greater community-paramedicine.[44] One suggestion is to 'batch' patients at hospitals, so that paramedic crews can more quickly return to service.[45]

Ambulance Victoria, as demonstrated earlier, has continued to innovate during the pandemic and these pressures, but there remains room for further support. While AV have implemented similar initiatives around improving ambulance to ED transfers with offload teams, which was recently expanded, there remains the potential for a system-wide rollout of staff to support this process. Similarly, there has been reporting on AV's use of new workforce models during the last year to support care, particularly during periods of COVID pressure in 2021 – so all options should be considered on how to safely ensure ambulance availability. This includes exploring workforce models like the recent pilot announced for the rostering of advanced life support paramedic crews.

Other jurisdictions are also exploring best use of their paramedic resources – and whether alternative services may be better placed for certain patients. For instance, the UK has developed its Urgent Community Response (UCR) services as part of the development of Integrated Care Systems (ICSs), which aims deliver urgent care within two hours. The services are intended to reduce pressure on ambulances and prevent avoidable hospital admissions.

In the past year, UCR teams have worked closely with ambulance services as part of the NHS response to winter pressures and COVID-19 and the NHS Urgent and Emergency Care Recovery 10-Point Action Plan (Action Plan). Successful delivery of care within two hours requires ongoing close partnerships between a variety of health and social care partners/teams, and ICSs have received additional funds to support this work, while £273.4 million was provided for UCR services as part of the Action Plan.[46]

These UCR teams are also used to support admitted remote care and provide referrals to ongoing or intensive community support. One service found that, in reviewing ED avoidance, for every UCR referral, 2.7 acute bed days are saved on average – and that a lot of the referrals (91 per cent) are for over-65s.[47]

The NHS looked to rapidly increase the coverage of UCR services through a 100-day challenge, showing the potential for quick and effective rollout. However, the UK experience, with some UCR services in operation from at least 2015, suggests that time is required to build capacity, rather than offering an immediate pathway to reduction in demand.[48]

Beyond that specific role, there has been consideration of the role of triage to support care access. The UK had GPs adopt a 'total triage' approach before appointments during the pandemic, which some practices had adopted beforehand. 'Early-adopters', prior to the pandemic, had seen three per cent fewer A&E visits in their patients compared with patients registered at 'late adopters'. The pandemic meant that performance improvements after this period were in line with the national trend. It has been argued that this is 'early evidence' that total triage and remote consultations can reduce ED visits.[49]

Similarly, Victoria has recently launched the Victorian Virtual Emergency Department (VVED), following a successful trial at Northern Health, which utilises a triage approach.[50] This has enabled people to receive care and advice at home, included those attended by AV paramedics.[51]

Other jurisdictions in Australia are also potentially exploring the most effective use of paramedics, and whether alternative teams are best placed to respond.

The recent parliamentary report on health outcomes and access to health and hospital services in rural, regional and remote New South Wales (NSW) recommended that there should be a review of the use of ambulance vehicles for patient transfers, as well as exploration of extending use of patient transfer vehicles to minimise the number of low-acuity jobs that paramedics attend to.[52] While the NSW Government has not delivered its formal response, this recommendation highlights the need to explore alternatives.

Potential opportunities

Establish urgent care response services – Develop and fund urgent care response services, utilising AV, Health Service Partnerships and community health services.

Faster virtual ED expansion – Increased investment in the VVED to hasten its expansion.

Patient transfer extension – Explore extended use of non-emergency patient transfer vehicles to treat low-acuity cases.

Fund offload staff – Centrally fund and resource a network of offload staff across the state, building on the COVID-19 surge model.

Paramedicine pilots – Fund the development of short pilots of new models of paramedicine care, including the use of 'batching', with the view to quickly 'upscaling' models with promise.

Patient flow

Admission

The intake aspect of the patient journey is currently receiving the most attention in Victoria. This is where the pressures present as ramping, with patients struggling to access timely care. Intake occurs primarily through EDs, but can also be facilitated directly into wards. Supporting the flow of patients through this area, while reducing instances of ramping, would also serve to reduce pressure on the system by easing a key 'bottleneck' within the system that leads to delayed care.

The UK has traditionally focused on increasing alternatives to Accident and Emergency (A&E), so as to reduce acute presentations – there is currently an emphasis on Urgent Treatment Centres and Same Day Emergency Care, with both of these taking place in hospitals, often next to A&E.[53] While this does serve to increase care access, the NHS experience has shown that these alternatives do not curb demand for care.[54]

Victoria's current workforce shortages would also suggest that similar facilities or departments may increase the competition for staff, compounding a key pressure contributing to ambulance offload delays. However, according to anecdotal feedback, GP Respiratory Clinics established during the pandemic reportedly diverted potential ED patients.

There is also a move at a national level to create alternatives to EDs. The new Labor Government has committed to creating 50 Medicare Urgent Care Centres to ease pressure on EDs. These are based on New Zealand's model, where Urgent Care Centres undertake 2.5 million consultations, with an apparent reduced ED attendance rate per 1,000 people compared to other health systems, including Australia.

As well as providing alternative care settings, there is also a benefit to increasing coordination during this part of the patient pathway. The ACEM has recommended the use of patient access coordination through an 'ED Nurse Navigator', who can work with a multi-disciplinary team to coordinate movement of patients into the hospital.[55] This role could help with consideration of clinical urgency and suitability for direct admission and have a key role in improving the patient journey. Early evidence suggests there is value to this type of role for reducing offload times and patient time in EDs.[56] [57] More broadly, patient navigators have been found to reduce ED re-admission and visits.[58] While this doesn't overcome certain limitations, such as bed availability, it could still help support patient flow. There are examples of services having a similar role in Victoria, yet it has never been implemented across the system.

Potential opportunities

Expand ED alternatives – Increased investment and expansion of GP-led Respiratory Clinics.

Use 'navigators' – Fund and require a navigator role at every public health service with an ED.

Discharge and acute care in the community

Recent public commentary during the Federal Election by the former Victorian Minister for Health highlighted the issue of delayed discharge, particularly due to delays in arranging care as part of the National Disability Insurance Scheme (NDIS). At the time, 208 people, having been as high as 260, were stuck in hospital waiting for discharge – with an average time of 118 days waiting in hospital due to NDIS delays, with some stuck in the health system for years.[59]

An inability to discharge means that people stay in the hospital and take up a bed unnecessarily; this leads to services being unable to admit patients from EDs, contributing to ramping. Speeding up this aspect of patient flow should improve patient experience as well as easing the pressure on EDs, as investing more resources and energy into the acute end of the challenge will do little if the system is unable to discharge people from hospital to appropriate settings with the right support.

This has been a long-term focus in other jurisdictions. For instance, in the UK, the concept of 'discharge to assess' (D2A) was created over a decade ago, focusing on discharging patients and assessing their support needs at home. In its first year, the D2A model contributed to a reduction in average length of stay for the cohort group from 5.5 to 1.2 days, with no observed change in re-admissions, eventually saving as many as 40,000 bed days in one year.[60] Initially predicated on older patients waiting for social support assessment, the model is being used on other cohorts and has been promoted as good practice by NHS England since 2016, although there has been variation in its adoption.

Such an approach does require a change in care delivery, including establishing intermediate care services and community health investment – especially if the intention is for people to return home rather than enter care facilities.[61] But this does align with existing research on the benefit of early discharge, even with hospital-like care at home.[62]

In a bid to incentivise improve discharge, the UK previously placed a greater emphasis on delayed transfers of care (DTOC) – when patients who are ready to be discharged or transferred to another care setting are unable to do so. Utilising this metric has enabled greater accountability – with significant improvements in reducing DTOC, even though there have been issues with targets and approaches.[63] A key part of the response was ensuring that local authorities, who deliver social services, were held financially responsible for the bed days their delays contributed to – although the majority of DTOC days, prior to the pandemic, were caused by the NHS.[64]

Despite the success of these initiatives, delayed discharge has continued to be an issue in England, particularly during the pandemic – often due to the pressure on social services.[65] In response, a new national discharge taskforce has been established, which will focus on the local authority and NHS actions required to drive progress.[66]

One of the key issues that has contributed to England's long-term issues with delayed discharge has been a lack of rehabilitation capacity, which has consistently been under-resourced and fragmented. This is particularly relevant for Victoria, which has embarked on a concerted plan to increase elective surgery and reduce its waiting list. There is potential for this plan to create further pressure on hospital beds, although there is an emphasis on same-day procedures.

Investment in rehabilitation has been found to improve patient flow. For instance, in the Netherlands, historic investment in rehabilitation has made it possible to move patients with lower-intensity needs more quickly through the system and reduce the volume of patients in hospital.[67]

Other countries studied have focused on expanding home care and rehabilitative capacity as part of their pandemic recovery strategies. Portugal has invested €205 million to develop a network of integrated care providers with rehabilitation and home care units to better enable continuity of care within the patient's home, while Ireland is adding 1,250 additional community beds, including more than 600 rehabilitation beds, as part of broader system reforms to build capacity.[68] There was no mention of rehabilitation in Victoria's COVID Catch-up Plan.[69]

A key part of removing the discharge pressure is to change the location of care. It has been identified, following the pandemic, that nations with pre-existing processes and infrastructure to drive care at home have been able to respond better to the increased demand for care.[70]

For instance, Sweden was able to use its well-developed hospital-at-home programs to increase the number of home visits provided, including to patients from higher-risk groups. Delayed discharge from hospital has not been a significant problem since the expansion of home-based models of delivery in the 1990s.[71]

Similarly, Denmark has long focused on increasing its support for ambulatory and home-care settings. This has prompted a steady decline in the number of hospital beds, which in 2019 equalled 2.6 beds per 1,000 population (roughly similar to Australia's own ratio), as well as reducing the average length of hospital stay.

This has helped the health system free up capacity in limited acute resources without any discernible reduction in quality, while evidence suggests that delayed discharges are now a less prominent issue than in other comparable countries.

To enable early discharge, municipalities in Denmark have increased the number of acute services that are delivered at home, alongside general home nursing. Delivery relies on community-based acute care teams, with expanded roles for nurses and care assistants. Home-based care is required to be available 24 hours a day, seven days a week, and work closely with hospital and primary care clinicians.[72]

Victoria has established initiatives to address the discharge pressure. The recently announced transitional care program will build a new model of care to get patients clinically discharged in partnership between health services and disability providers; 34 have reportedly been helped already – the equivalent to 1,300 bed days.[73] The recent announcement to support ramping also expanded the use of discharge coordinators to 12 hospitals – although nothing to increase capacity in the community. Similarly, the Victorian Budget 2022-23 included expanded funding for the Better at Home program, which encourages moving admitted patients to community settings to finish their care.[74] While these programs will help to address access block, further support is required to ease this particular pressure point.

Potential opportunities

Discharge earlier – Establish a state-wide D2A program, with appropriate funding.

Week-long discharge – Provide investment to expand state-wide discharge of inpatients, with greater discharge supports in the community, to seven days a week.

Measure delayed transfers of care – Explore the potential implementation of greater transparency and data around the reasons for delayed transfers of care, with a view to sharing accountability and responsibility.

Greater rehabilitation support – Increase rehabilitation services as part of the COVID Catch-up Plan for elective surgery.

More home-based care – Increase investment in home-based models of care to assist the Better At Home program, including exploring the potential to utilise community-based acute care teams, with expanded roles for nurses and care assistants, particularly to support the discharge of older Victorians.

Community care

Greater care in the community

Care in the community has played a vital role in Victoria as it has responded to the pandemic. The VHA, in particular, has highlighted the community health sector's response.

The success of the COVID Positive Pathways Program helped to establish a stepped model of care that enabled the vast majority of Victorians with COVID-19 to be treated in the community. Even on 25 May 2022, while Victoria had more COVID-19 deaths, cases and people in ICU, it had less than half the hospitalisations of New South Wales. Research has also indicated its potential for expansion to other conditions, which the VHA has advocated for.[75] Similarly, the High Risk Accommodation Response program enabled people in community housing (and other high-risk settings) to access care in their own homes.

As the system responds to broader pressures that contribute to ambulance offload delays, a renewed focus on community care will support overall health system performance – for instance, a lack of capacity in social and community care is one of the contributors to delayed discharge, as mentioned above. Research indicates there is a direct connection between home care availability and instances of DTOC.[76]

Internationally, many systems are prioritising community care post-pandemic.

The Nuffield Trust identified it as one of their international lessons to support health system recovery from the pandemic.[77] While health systems focused on mobilising acute and intensive care resources during peaks of the crisis, many recovery plans are centred on strengthening capacity outside of hospital and better integrating services.

The Nuffield Trust found there was consensus among experts that freeing up staff resources in acute care relied on being able to deliver as much care as possible to patients in primary care, community services, mental health and social care. This is supported by the Organisation for Economic Co-operation and Development (OECD), which has pinpointed primary care as a vital tool for health responses both during and after the pandemic.[78]

Several countries in Europe are investing in public health, social care and ambulatory care services as part of this process. For example, Italy is investing €2 billion to establish nearly 1,300 one-stop 'health homes', similar to the place-based approach of community health services in Victoria, to strengthen local delivery of health services. These will provide a single point of access for health and social care needs assessments and care, and will become a hub from which health and social welfare services are coordinated.[79]

Similarly, Austria is investing €100 million to establish 70 new primary care centres and expand more flexible working-time models.[80]

Meanwhile, Finland, prompted by the pandemic, has accelerated long-standing reforms to integrate planning for health, social care and broader welfare services into single unified regional bodies, similar to the UK's ICSs. Finland has also introduced a new seven-day access guarantee for non-urgent general practice appointments, supported by €230 million for regions to reduce access barriers.[81]

Ireland has established community-based pathways in cardiology, diabetes and chronic respiratory illness, underpinned by 7,000 additional staff and the creation of 1,250 more community beds.[82]

Potential opportunities

Leveraging community health services – Increase investment in community health to support the broader health response to ramping and the impact of the pandemic.

Involve GPs – Increased funding and direction to support the availability of GP-led care in the community.

Expand COVID Positive Pathways – Fund the expansion of the successful COVID Positive Pathways program into further diagnostic areas.

System capacity

Workforce

One of the biggest inhibitors to improving the ramping issue in Victoria is workforce.

Workforce shortages in hospitals mean that the state is struggling to utilise all its bed capacity and limit the effectiveness of adding further beds to the system, at least in the short-term. The shortages also mean that the state will struggle to bring in workforce from other parts of the health system, or deliver care in alternative settings. To combat this, the state announced funding as part of the Victorian Budget 2022-23 to recruit 7,000 extra trained healthcare workers, including 5,000 nurses and midwives, as well as attracting 2,000 overseas professionals.

Unfortunately, workforce is not a quick issue to remedy – the domestic pipeline takes time to deliver the results and international recruitment can be difficult.

Workforce has been a concern for ED care for a number of years. The ACEM has highlighted Australia's reliance on international doctors, while a 2019 workforce survey found that 50 per cent of respondents were suffering moderate to severe work-related burnout.[83] In the same survey, 81 per cent reported that fatigue had affected their performance, while only 27 per cent of Australian EDs met the recommended minimum staffing guidelines, including just three regional hospitals.[84]

Health workforce shortages are an international problem, as other health systems also face a rise in care demand following the pandemic.[85]

There is currently a global competition for staff, with the UK alone facing 105,855 FTE vacancies in the NHS according to the latest workforce figures. It is a crowded market, with plenty of other nations competing – in response, the UK has established a specific Health and Care Worker Visa, while grants of £25,000 to £100,000 are being given to NHS trusts to enable overseas recruitment.[86]

This means coordination between the Commonwealth and states is vital, due to Australia's federalised model. While Victoria has offered incentives to attract 2,000 international professionals, the program has struggled for uptake. VHA members have also reported on the long time it can take to get recruited workers into the country, beyond just their struggle to recruit.[87]

But, recruiting this number of international workers quickly is possible – Ontario, in Canada, reported that 2,259 internationally trained nurses joined the workforce in the first six months of 2021, more than during the whole year of 2020.[88]

Analysis by the Nuffield Trust shows that high average nurse salaries make Australia an attractive place to migrate to for work, but a streamlined approach is required, as speed and citizenship pathways are vital factors in attracting international professionals.[89] There are some ethical implications to consider when recruiting internationally, but this can be mitigated through a coordinated approach.

Victoria also recently announced $3,000 'loyalty' payment to support workforce retention, but with the mental health impact of the pandemic well-established, there has to be more than just money to keep staff in the system.[90]

To support workforce retention, other jurisdictions are exploring alternative ways to empower staff.

In Ontario, there is an initiative to improve staff retention by protecting more of their staff time for quality improvement projects. Clinicians are only at the patient's bedside for four days a week and have a day protected for training. While more expensive, it has reportedly helped improve staff engagement and retention at a time of pressure and strain on staff.[91]

Other jurisdictions have also found that supporting more autonomy in decision-making had enabled new models of care. In Catalonia, facing insufficient numbers of anaesthesiologists to keep up with surgical waiting lists, a new model of care utilising nurses has supported the pace of the pandemic recovery. This has allowed for the flexible use of skills and optimised staff resources while fostering a sense of ownership over the recovery process.[92]

This is supported by the Australian pandemic experience; recent research in Queensland highlighted how, during the early days of the COVID response, when management enabled some devolution of authority, it facilitated the introduction of new models of care, increased pace of change, and improved subsequent adoption.[93]

Due to the amount of time workforce initiatives can take to have an impact, one of the quickest methods of increasing the capability of the workforce is to enable and encourage existing staff to work to the full extent of their ability.

This has been demonstrated in Italy, where the new 'health homes' will be supported by a structural increase in overall staffing levels, including designated funding to recruit 9,600 new 'family and community nurses', a new type of advanced practice nurse to support home-based care and care continuity within the community.

The VHA has long supported this model, as it allows the health system to better utilise the resources at its disposal. For example, the VHA has previously called for greater use of Nurse Practitioners and Rural Isolated Practice Registered Nurses as they can support increased access to care.

The Victorian Government has successfully utilised similar approaches during the pandemic, such as utilising pharmacists and first-year health students to support the state's vaccination rollout – which has also been seen in other jurisdictions.[94] This has been expanded on recently, with the Victorian Budget 2022-23 providing funding for an additional 1,125 trainee nurses to annually join the workforce earlier as part of a Registered Undergraduate Student of Nursing (RUSON) pilot program.

While this full scope of practice should occur across the system, it can also occur in more specialist areas such as EDs; for instance, ACEM has previously called for the introduction of new workforce typologies such as Nurse Practitioners in ED settings.[95]

Another method that Victoria has previously utilised to support the workforce response during the pandemic was increased workforce flexibility – which allowed health services to do more with fewer staff.

The planned and managed state-wide 'Code Brown' during the first Omicron wave enabled services to implement surge workforce models that did not adhere to regulations on staff-to-patient ratios. This meant services did not have to have as many staff on shift at a time of high staff furloughing.

These surge models have since been wound down, but services continue to be impacted by staff furloughing. This did leave services to take an individual approach for a state-wide problem. Recent 'Code Orange' calls in some regional hospitals enabled the use of surge models when required, while other services engaged with unions to enable temporary agreements to allow for surge workforce models. The

Health System Winter Response plan has enabled further flexibility as cases, and hospitalisations, begin to increase in the current wave – but this flexibility has benefits for the broader health system response to the pandemic and its impacts beyond these peak periods.

Recent conversations with health services have also highlighted that increased flexibility is important for the health sector to be a modern employer that can offer an attractive workplace. With nurse-to-patient ratios codified through legislation, it is incumbent on the Victorian Government to lead this conversation.

Increased flexibility may not be a long-term solution, but it offers temporary support, while other initiatives take effect, to limit the impact of ramping if implemented across the system.

Potential opportunities

Streamline international recruitment – Advocate nationally to streamline international recruitment processes for healthcare workers, with an improved citizenship pathway process.

Prioritise retention initiatives – Fund health services to deliver local initiatives to increase workforce retention, such as training days or increased staff ownership of decisions.

More 'full scope of practice' – Encourage and facilitate 'top of scope' working across the sector, including the removal of artificial industrial demarcations that hamper ED staff.

State-wide flexibility – Negotiate and deliver a state-wide agreement on workforce flexibility for the duration of the pandemic response.

System planning

As ramping is a symptom of broader dysfunction, it signals that there is a failure by parts of the system to work together effectively – which is underpinned by data and planning. The Victorian health system is plagued by a dearth of information; while the system and services have copious amounts of data, there has been a struggle to 'connect the dots' to inform a planned system approach. This did improve during the pandemic, with greater collaboration between services and the establishment of Health Service Partnerships, which enabled public health services to work together on key issues under regional groupings. But more is required, especially as the health system needs to be able function as a collective to deal with a system-wide problem such as ramping.

While health systems globally know they need more health workers, they often struggle to know exactly how many they need. A recent UK parliamentary inquiry on clearing the pandemic care backlog cited the lack of a funded long-term workforce strategy as one of the greatest limiting factors.[96] Many health systems lack the ability to assess future staffing needs, and the data required, to be able to develop informed workforce strategies. Even health systems which do utilise modelling and forecasts, such as the Netherlands and Norway, have been limited in their effectiveness due to local implementation.[97]

This highlights the importance of coordinated work at both national and regional levels to prioritise action, and the futility of planning without meaningful implementation support and resources. Such an approach would support Victoria's current workforce shortages – due to the devolved nature of the health system, the Victorian Department of Health has limited oversight and understanding of the workforce, reliant on an annual census. For instance, it is currently impossible to work out how many staff have left the system,

while work has only begun in the last year to quantify the mental health workforce. The VHA continues to advocate for a workforce roadmap for the sector.

But planning also extends to how a health system is measured. The UK has explored how system-wide targets contribute to issues relating to EDs. For instance, it has been found that the ED target to treat 90 per cent of patients within four hours, which Victoria also has, promotes poor decision-making. The NHS has explored changing this target to better reflect actual care needs, instead of being marked against a single time benchmark.[98]

This has been replicated domestically, with ACEM having called for a focus on exploring the effectiveness of time-based targets on reducing ramping incidence. They have developed 'Hospital Access Targets'; a new access measure that describes three patient streams with their distinct targets, which are intended to reflect patient complexity. While perhaps not popular with the public, who want to be treated as quickly as possible, these new standards could enable a more realistic approach to care.[99]

Furthermore, there is potential to utilise lessons from Victoria's pandemic experience, such as the establishment of integrated operations centres to deliver a whole-of-hospital bed management system, including real-time data systems.

Victoria had a similar initiative earlier this year during the state-wide 'Code Brown', with ICU beds coordinated across the state, but there is the potential for this to be expanded – peak health bodies in Victoria recently called for real-time data for EDs.[100] It is pleasing to see this recognised through the announcement of a new, near real-time data dashboard to give an overview of system capacity to assist decision-making, but this can be expanded – and we cannot wait for system pressure to be a catalyst for this change in approach.

Greater knowledge of Victorian beds, considering their lower ratio in comparison to other states, can support more efficient use of resources and help to mitigate instances of ramping. But this could also extend to performance – South Australia, which is also struggling with the issue of ramping, is exploring the use of a Relative Stay Index to compare services, to help drive improvement on length of stay. By reducing the relative length of stay, system throughput should increase, which should help mitigate access block.

Potential opportunities

Victorian Health Workforce Strategy – Fund and deliver a Victorian Health Workforce Strategy, increasing the state's use of data and modelling to inform workforce decisions, which should include short- and long-term initiatives.

Smarter ED reporting – Review current ED reporting measures and explore potential adoption of ACEM's recommended Hospital Access Targets, with a commitment to engage with VHA, ACEM and other peak bodies to resource needed solutions.

Greater real-time monitoring – Explore expanding real-time monitoring of health service resources, capacity and performance to support system performance.

Conclusion

This issues paper has sought to highlight potential policy solutions that could assist the Victorian public health sector as it continues to respond to the issue of delayed ambulance offload. It is vital that ambulance, public and community health services continue to be supported, with the pressures contributing to the increased instances of ramping unlikely to diminish in the near future.

These services are delivering quality care in spite of the system, not because of it – and that needs to change if they are to be appropriately supported through this period.

With ramping a symptom rather than a cause of the pressures on the health system, the emphasis has to be on holistic proposals, which is why the ideas explored here looked at the entire patient pathway. None of these suggested initiatives will be the 'silver bullet', but should be considered as part of a broader plan to respond to the current system pressure. They have been informed by the latest developments on the broader pandemic health recovery, drawing on international and domestic experiences and expertise.

The Victorian Government has attempted, and will no doubt continue, to support services with the pressures that contribute towards ramping – we urge them to continue to work with, and support, the sector through this difficult period. Their recent announcement took great inspiration from model at Leeds Teaching Hospitals NHS Foundation Trust in the UK, which has the best handover performance in the country – they attribute this to their 'collaborative working and taking a whole-system approach', which we hope can be encouraged in Victoria.[101]

The VHA hopes that this paper is a starting point to generate further innovation and action by sector policy leaders and decision makers. Victoria needs a systemic response to this issue, or it faces repeating its past mistakes; the similarities between the ideas highlighted here and the initiatives from 20 years ago as set out in the *Hospital demand management strategy 2001–2002* should be a clear signal that a comprehensive approach is required.

The VHA will continue to advocate on behalf of its members on issues relating to ramping and the broader system pressures they are facing.

Appendix A – Potential opportunities

Pathway phase	Policy area	Opportunities
Diversion	Prevention and early intervention	• Earlier intervention for older Victorians • Enable care in facilities • Target 'at-risk' Victorians • Increased prevention funding
	Triage	• Establish urgent care response services • Faster virtual ED expansion • Patient transfer extension Fund offload staff • Paramedicine pilots
Patient flow	Admissions	• Expand ED alternatives • Use 'navigators'
	Discharge and acute care in the community	• Discharge earlier • Week-long discharge • Measure delayed transfers of care • Greater rehabilitation support • More home-based care
Community care	Greater care in the community	• Leverage community health services • Involve GPs • Expand COVID Positive Pathways
System capacity	Workforce	• Easier international recruitment • Prioritise retention initiatives • More 'full scope of practice' • State-wide flexibility
	System planning	• Victorian Health Workforce Strategy • Smarter ED reporting • Greater real-time monitoring

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