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Victorian Government – Department of Health

SafeScript Review –Final Report

May 2024

Contents

Glossary

Term	Abbreviation	Definition
Better Regulation Victoria	BRV	Better Regulation Victoria works alongside the Victorian Government and community to support the analysis, design and implementation of best-practice regulation.
Coroners Court of Victoria	CCV	The Coroners Court of Victoria has three roles: independently investigate deaths and fires, reduce preventable deaths, and promote public health and safety and the administration of justice.
Drugs, Poisons and Controlled Substances Act 1981	DPCS Act	Drugs, poisons and controlled substances are defined under the Act as being in Schedule Eleven to the Act, the Poisons Standard (the Standard for the Uniform Scheduling of Medicines and Poisons) or the Poisons Code.
Emergency Department	ED	A medical treatment facility specialising in emergency medicine, the acute care of patients.
Individual Healthcare Identifier	IHI	A unique 16-digit number the My Health Record system uses to identify an individual.
Long Acting Injectable Buprenorphine	LAIB	A medical treatment for opioid dependence, which was approved for release in Australia by the Therapeutic Goods Administration with effect from 2020.
National Opioid Pharmacotherapy Statistics Annual Data	NOPSAD	The National Opioid Pharmacotherapy Statistics Annual Data aggregates standardised jurisdictional data on the number of clients accessing pharmacotherapy for the treatment of opioid dependence, the number of prescribers participating in the delivery of pharmacotherapy treatment, and quantitative information about the prescribing sector.
Therapeutic Goods Administration	TGA	The Therapeutic Goods Administration is the medicine and therapeutic regulatory agency of the Australian Government which regulates the quality, supply and advertising of medicines, pathology devices, medical devices, blood products and most other therapeutics.
Victorian Admitted Episodes Dataset	VAED	The Victorian Admitted Episodes Dataset (VAED) provides a comprehensive dataset of the causes, effects and nature of illness, and the use of health services in Victoria.

01 | Executive Summary

What was the project scope and approach?

The SafeScript Review consisted of four phases designed to meet the Review Objectives and assess SafeScript against its objectives and identify whether there had been any unintended consequences as a result of its implementation.

Background

In 2016, the number of pharmaceutical overdose deaths (372) was greater than the number of deaths on roads (291). In April 2019, SafeScript was implemented by the Victorian Government for use by prescribers and pharmacists in response to trends in prescribing that suggested high-risk prescription medicines may be accessed inappropriately, causing harm to patients. Use of the real-time prescription monitoring system became mandatory from 1 April 2020.

SafeScript is a clinical tool to help prescribers and pharmacists make safer decisions about the prescribing or dispensing of high-risk medicines. It is designed to facilitate the early identification, treatment and support for patients who are developing signs of drug dependence. The objectives of SafeScript are to:

1. Promote safe supply, prescription and dispensing practices
2. Reduce the harms from the medicines monitored in SafeScript
3. Facilitate evaluation and research into the monitored medicines and SafeScript's operation.

Review Objectives

Deloitte was engaged to conduct the SafeScript Review (the Review), in line with the regulatory requirements established by its implementation under Section 30A of the *Drugs, Poisons and Controlled Substances Act 1981* (DPCS Act).

The Review assessed the extent to which:

- SafeScript has achieved its intended objectives and benefits
- there are any unintended costs, issues or other consequences of SafeScript that need to be addressed or managed
- the costs and/or burdens placed on health professionals are higher or lower than anticipated.

Approach

The Review utilised a mixed methods approach across the following key activities:

Initiation and planning. A detailed set of planning activities was conducted to clarify the key review questions, implement appropriate project governance and risk management activities. This included the development of a Review Framework (see Appendix C) which outlined the key review questions and indicators that were explored throughout data collection activities.

Data collection and analysis. To inform the findings of the Review, Deloitte conducted 16 consultations with 23 organisations between February and April 2024 (written responses were received from a further two organisations). Interviewees included Government stakeholders, peak bodies, pharmacists, prescribers, Coroners Court of Victoria, and consumer groups. A stakeholder survey was also disseminated, receiving 1,934 responses from prescribers and pharmacists and further supported by a detailed desktop review.

Data from these sources was synthesised into a set of Preliminary Findings which were validated with the Department. Feedback from this session was then used to inform development of recommendations and contextualise these against a framework to guide staged implementation by the Department.

The data in this report is limited by some internal and external factors. These include:

- the co-occurrence of SafeScript's implementation with the onset of the COVID-19 pandemic
- difficulty attributing changes in monitored medicine practices to SafeScript
- the absence of longer term data to establish longitudinal trends.

Report. The Review Report, this document, summarises these findings, associated evidence and recommendations for SafeScript improvement. These have been grouped into five lever categories.

SafeScript midterm review summary

SafeScript is a real-time prescription monitoring system that aggregates electronic prescription and dispensing records for defined high-risk medicines. It was implemented as a tool for prescribers and pharmacists to enable safer decisions for their patients. Usage of the system is mandatory to ensure it is checked each time a high-risk medicine is prescribed or dispensed.

WHY SAFESCRIPT?

In 2016, the number of pharmaceutical overdose deaths [372] was greater than the number of deaths on roads [291].

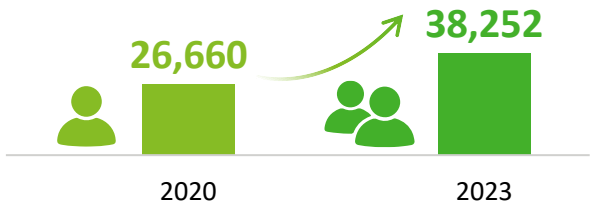
ABOUT THIS REVIEW

The SafeScript Review meets regulatory requirements and assessed the extent to which:

- SafeScript has achieved its intended objectives
- Unintended costs, issues or other consequences of SafeScript need to be addressed or managed
- Costs and/or burdens placed on health professionals are higher or lower than anticipated

SafeScript has made a positive impact, reducing harm and promoting the safe supply of monitored medicines in Victoria

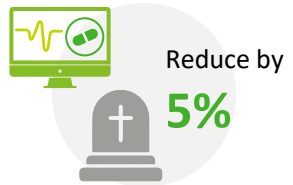
Number of SafeScript users[1]



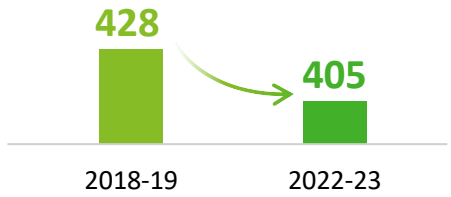
Patients supplied high risk medicine combination[1]

Reduce by **32%**

Prescription monitored medicine related deaths[2]

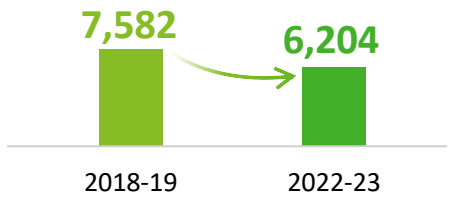


Reduce by **5%**



Prescription medicine related hospital admissions[3]

Reduce by **18%**



Prescription medicine related emergency department attendances[4]

Decrease by **12%**

The review identified opportunities to improve the system that included

1. Streamline workflow to make it easy to access and read
2. Increase and continue to communicate with the workforce and general public to support awareness and acceptance
3. Advocate for national harmonisation of real-time prescription monitoring software

Source: 1) SafeScript Administrative Data extracted via Department of Health (Victoria); 2) Coroners Court of Victoria; 3) Victorian Admitted Patient Dataset via Department of Health (Victoria); 4) Victorian Emergency Minimum Dataset data extract via Department of Health (Victoria).

The key findings

The SafeScript Review found that, SafeScript has made progress towards the achievement of the objectives in-scope for review.

SafeScript has made strong progress towards achieving two of its three objectives*. The Review highlighted that:

Objective 1: Promote safe supply, prescription and dispensing practices

SafeScript, comparatively, provides prescribers and pharmacists with more information on the medication history of individual patients. This was reportedly promoting the safe supply, prescribing and dispensing of high-risk medications. The increase in information was also reported to improve clinical decision-making; most stakeholders highlighted that the traffic light alert system provided them with an easy way of understanding potential risk so they could make an appropriate decision. However, further refinement and incremental improvements would improve its utility.

Objective 2: Reduce the harms from the medicines monitored in SafeScript

In the time since SafeScript has been implemented, there is evidence of reduced harm from monitored medicines. Key metrics captured by the system including the number of prescription medicine related deaths, ambulance attendances and emergency department presentations had all reduced during the implementation period:

- 5% reduction in number of prescription-monitored medicine-related deaths
- 9% reduction in number of prescription medicine related ambulance attendances
- 12% reduction in number of prescription medicine related emergency department attendances

Stakeholders reported that SafeScript had changed their prescription and dispensing habits and as a result they were more likely to identify patients who were likely stockpiling or at risk of harm from monitored medicines.

Despite the success in meeting objective 2, there are several barriers that have impacted its ease of use by both prescribers and pharmacists. Stakeholders noted that the required information was presented within SafeScript, however, the following prevented an easy integration into everyday workflows:

- longer than expected times to log into the system (further complicated by multi-factor authentication) and interpret the line level data provided
- confusion on the use of green traffic light notifications which still required a check within SafeScript by the clinician
- poor integration into patient management software which required an external portal for access
- lack of national unity in real-time prescription monitoring requirements impacting cross border practitioners.

In considering the achievements and success highlighted by users in supporting the safe supply of medications as well as barriers to its use – revisiting the original cost benefit framework assumptions, it appears that on balance, SafeScript has delivered a net benefit.

Ultimately, it appears SafeScript is making a valuable contribution in this complex area of medication monitoring and management, which is experiencing national level policy change.

As SafeScript continues to be utilised by prescribers and dispensers it will be important that the level of understanding across both the community and workforce remains.

The central message that must be conveyed to these groups is that SafeScript is a tool targeted at patient safety rather than an enforcement and regulatory tool that is used by the Victorian Department of Health. This will continue to enable good clinical decision making and support the desired patient outcomes that all stakeholders are interested in achieving.

*SafeScripts' third objective wasn't assessed as part of this Review as it is yet to be implemented by the Department. Stakeholders noted that public access to the data may be of benefit to grow the level of transparency in use of monitored medicines; it would also support public research and decision making for organisations who provide support services.

Summary of key findings by - By review question

1. Is SafeScript easy to use?	SafeScript contains necessary information but there are multiple barriers which prevent ease of use by prescribers and pharmacists
2. Has SafeScript achieved its objectives?	SafeScript provides information on a patient medication history that promotes safe supply, prescribing and dispensing of monitored medicines
	SafeScript has reduced harm from monitored medicines across key metrics that includes reductions in prescription medicine related hospitalisations, emergency department attendances and deaths
3. Have there been any observable unintended consequences of SafeScript implementation?	No increase in overdose deaths or hospitalisations as a result of changes to the supply of medications monitored in SafeScript
	There have been improvements in patient behaviour related to prescribing and dispensing events despite the increase scrutiny on the supply and use of monitored medicines
	Changes in the perceived level of regulatory oversight of clinicians regarding the supply of high-risk medicines causing workforce exits and an emphasis on enforcement rather than patient safety
4: Has introducing the system aided the clinical decision-making process?	SafeScript has improved prescribers' and pharmacists' visibility of patients' prescribing and dispensing histories
	Limited information is captured on clinical decision making by prescribers which impacts pharmacists ability to appropriately dispense medications
5. Has there been a net benefit associated with introducing SafeScript, and if so, how large is this benefit?	Performance measures achieved mixed results – particularly due to the disruption from COVID-19 but stakeholders suggest it has achieved some benefits
	Stakeholders considered the program had delivered a net benefit despite the costs being slightly larger than expected.
6. Existing exceptions appropriate?	Existing exemptions appear to be appropriate for the continued use of SafeScript
	Stakeholders had varied opinions on the requirement for the mandatory use of SafeScript

Summary of recommendations – What we learned to improve SafeScript

	#	Recommendation	Higher Priority	Lower Priority
Governance	1	Continue program funding and operations of SafeScript in Victoria	X	
	2	Use of data to inform population-based insights and research	X	
	3	Continue regular review of the list of monitored medicines		X
Technology design	4	Encourage improved integration of SafeScript with patient management systems for prescribers and dispensers to support improved workflow and accessibility		X
	5	Improve analytics and presentation of data to assist users to more quickly interpret information	X	
	6	Better integrate permit application and maintenance processes into SafeScript	X	
	7	Consider the development of a mobile application to support users to access the system 'on the go'		X
	8	Explore opportunities to enhance the communication and information exchange within SafeScript to enable the upload of notes and contextual information to inform better clinical decision making		X
Workforce	9	Review approved access and consider inclusion of a broader range of professional users (e.g., Allied Health practitioners)	X	
	10	Invest in the promotion of the SafeScript workforce training and materials to improve user understanding of the benefits of the system, their obligations to use the system, and how to use the system	X	
	11	Design better supports (training and communication tools) for prescribers and pharmacists to support their patients to find appropriate referral pathways after an intervention is made		X
	12	Emphasise the focus of SafeScript as a patient safety and outcomes tool rather than something that is focused on regulatory enforcement in training and communications to users	X	
Supporting ecosystem	13	Support moves towards a nationally harmonised approach (including consistent lists of monitored medicines and cross-jurisdictional information sharing) to real-time prescription monitoring	X	
Comms	14	Ensure the public remain informed and aware of the existence, role and benefits of SafeScript		X

02 | SafeScript Review

Background and scope of SafeScript Review

The Department engaged Deloitte to undertake the review of SafeScript to meet the regulatory requirements and assess the extent to which SafeScript was meeting its objectives, had resulted in any unintended consequences and increased the burden on the workforce.

Background

In 2016, the Victorian Government committed to implement a real-time prescription monitoring system in Victoria. SafeScript, Victoria's real-time prescription monitoring system was implemented across Victoria from 1 April 2019. SafeScript use by prescribers and pharmacists became mandatory on 1 April 2020.

SafeScript is a clinical tool to help prescribers and pharmacists make safer decisions about the prescribing or dispensing of high-risk medicines. It is designed to facilitate the early identification, treatment and support for patients who are developing signs of dependence.

The objectives of SafeScript are to:

- promote safe supply, prescription and dispensing practices
- reduce the harms from the medicines monitored in SafeScript
- facilitate evaluation and research into the monitored medicines and SafeScript's operation.

SafeScript was established under Section 30A of the *Drugs, Poisons and Controlled Substances Act 1981* (DPCS Act) as the monitored poisons database. Pharmacists, medical practitioners and nurse practitioners are required under the DPCS Act to check SafeScript before supply or prescribing of monitored supply poisons.

When established, the Regulatory Impact Statement proposed that a formal review of the regulations be conducted in 2023/2024 – once data for three full years of SafeScript operation is available. This Review meets this requirement.

Scope and purpose of this report

In December 2023, Deloitte was engaged to undertake the SafeScript Review (the Review). The purpose of the Review was to assess the extent to which:

- SafeScript has achieved its intended objectives and benefits
- there are any unintended costs, issues or other consequences of SafeScript that need to be addressed or managed
- the costs and/or burdens placed on health professionals are higher or lower than anticipated

This Review aligns with the requirements of a mid-term evaluation specified in the *Regulatory Impact Statement – Proposed Drugs, Poisons and Controlled Substances Amendment (Real-time Prescription Monitoring) Regulations 2018* and Better Regulation Victoria's *Victorian Guide to Regulation*.

In agreement with Better Regulation Victoria (BRV) and the Department, the Review primarily focused on the first two objectives. It should be noted that considering changes to the list of medicines monitored in SafeScript was out of scope for this Review.

Key Review Questions

To achieve this purpose the Review explored the following key review questions (see Appendix C for additional detail outlined within the Review Framework):

1. Is SafeScript easy to use?
2. Has SafeScript achieved its objectives including:
   - Does it promote safe supply, prescription and dispensing practices?
   - Has it reduced harm from monitored poisons and other high-risk medication?
3. Have there been any observable unintended consequences of SafeScript implementation?
4. Has introducing the system aided the clinical decision-making process?
5. Has there been a net benefit associated with introducing SafeScript, and if so, how large is this benefit?
6. To what extent are the existing exceptions for use appropriate?

This report brings together the key findings gathered in response to these key research questions.

Methodology – Overview of approach

SafeScript Review has been conducted across 4 key phases and included a detailed desktop review, over 21 stakeholder consultations, and a survey of prescribers and pharmacists.

Initiation and Planning

Plan project. Conducted project planning activities including clarifying the key review questions, identifying and contacting relevant stakeholders for consultation, and requesting background documents and data on SafeScript usage and key performance indicators.

Develop Program Logic and Review Framework. Developed the Program Logic Model to support the identification of key indicators across the Review Framework which provided a systematic structure outlining how data collection tools (including discussion guides and the stakeholder survey) were developed. This approach also ensured a clear linkage back to the objectives of the Review.

Data Collection and Analysis

Consult stakeholders. Stakeholders were consulted through virtual interviews over a 2-month period during February and March 2024. 16 consultations were conducted with 23 organisations (written responses were received from a further two organisations) comprising a combination of Government stakeholders, peak bodies, pharmacists, prescribers, Coroners Court of Victoria, and consumer groups. See Appendix A for a detailed list.

Disseminate survey. The Stakeholder Survey was distributed to all prescribers and pharmacists registered to use SafeScript in Victoria. 1,934 responses were received (1,422 prescribers, 512 pharmacists). Questions explored the respondents' experience using the system and opportunities for improvement.

Desktop review. A detailed desktop review was completed using information and data shared by the Department (see Appendix B) to assess SafeScript against the key review questions (see Appendix C) within the Review Framework. Specifically, it informed the understanding of the policy context, achievements against the three planned benefits, training outcomes and other key data sources across emergency departments, ambulance services and hospital admissions.

Synthesise themes. Key insights gathered through all data collection activities were analysed to answer each key review question and identify key findings that were subsequently tested with the Department.

Test and iterate The key findings were tested with the Department in March 2024, and subsequent feedback, further data and information was then integrated into the review. These have been used to support the development of recommendations.

Reporting

Identify levers and opportunities. Following completion of consultations, the key opportunities were identified, alongside their key enablers, implementation considerations and risks. The opportunities were contextualised within a framework that considered the key levers available to the Department to influence change.

Support implementation. To support a path forward, the identified opportunities were prioritised as either high or low priority based on the impact that will have into the future.

Document and communicate. All analysis conducted over the course of the project was brought together and presented in a Report (this document).

Stakeholder engagement highlights

- **23** Organisations
- **10** Peak Bodies
- **1,422** Prescriber survey respondents
- **512** Pharmacist survey respondents
- **4** Consumer Groups
- **4** Government organisations

Limitations and structure of this report

The remainder of this report is structured across four key sections, concluding with a path forward to support implementation of the identified recommendations.

Limitations

The analysis in this report is based on the available data relating to SafeScript, its use and its potential impacts. While there is a significant amount of data, there are also some key limitations on some or all the data which reduces this Review's ability to make more definitive findings and recommendations.

- **Attribution of impact –** The implementation of SafeScript has been a large undertaking, however, it has not been done in isolation across the health and social services sector. As such changes in monitored medicines use cannot be solely attributed to its implementation and ongoing use. As an example, during this period Services Australia has also had the Prescription Shopping Information Service and Alert Services in place with an overarching goal to minimise prescription shopping. These services were similar to SafeScript.
- **External factors –** The onset of the COVID-19 pandemic coincided with the mandatory use of SafeScript (April 2020). This shifted the way society accessed healthcare and continues to shift overall access which has likely impacted the ability of SafeScript to meet its objectives. A key policy change that occurred during this period was the pausing of elective surgery which may have resulted in the need for more pain medications. It has also created uncertainty around population growth which has largely prevented detailed analysis to be adjusted for population growth due to the uncertainty from key datasets and changing immigration patterns.
- **Longitudinal trends –** SafeScript has captured data for a period of 4 years, to ensure certainty of the longitudinal trends of monitored medicines use additional time will be required and is something that should be explored as part of the review to be conducted at endpoint of implementation as required by the Regulatory Impact Statement.
- **SafeScript Review survey data** – Responses were biased towards those who were already registered users of SafeScript and wasn't directly distributed more broadly; noting that some peak bodies promoted the survey to their member as appropriate.

The remainder of the report is structured as followed:

- **Section 3** profiles the policy context and key data point that resulted in the implementation of SafeScript.
- **Section 4** describes the SafeScript system and how it operates as a patient safety tool that was designed to support clinical decision making for prescribers and pharmacists in Victoria.
- **Section 5** provides a detailed outline of the Review methodology that was undertaken as part of the project; including the Program Logic Model and Review Framework.
- **Section 6** provides a summary of the key findings.
- **Section 7** provides recommendations and next steps aimed at promoting the objectives and safety of SafeScript and ultimately improving the quality of medication use across Victoria.

An **appendix** is included to provide detailed account of:

A. List of Consulted Stakeholders
B. SafeScript Data Analysis
C. Review Framework and Program Logic
D. Stakeholder Survey Analysis
E. Key Performance Indicators
F. Dashboard and Alerts
G. High Level Cost-Benefit Analysis Framework

03 | Background and Context

SafeScript background

Prior to the introduction of SafeScript, there was a significant increase in the prescription of, and harms caused by, high-risk prescription medicines in Victoria.

Trends in prescribing

Prior to the introduction of SafeScript, certain high-risk medicines were increasingly supplied to patients to manage pain, anxiety and to aid sleep. In particular:

- opioids were increasingly being prescribed for the management of chronic, non-malignant pain
- benzodiazepines were prescribed for anxiety and sleep
- other strong sedatives such as Zolpidem and Zopiclone (known collectively as 'Z-Drugs') were also increasingly prescribed.

Prescribing such addictive medications for long-term management prompted concerns that their clinical effects would reduce commensurate with patients' increased tolerance over time, while increasing their likelihood of dependency.

Oversight limitations in prescribing and dispensing of high-risk medicines

Before SafeScript was introduced, healthcare professionals lacked a centralised and up-to-date record of patients' medication prescription and dispensing histories. The absence of this objective information and data increased the risks of unsafe prescribing and dispensing practices, including inadvertent over-prescribing by multiple prescribers unknowingly prescribing unsafe aggregate combinations or dosages of medicines, and patients seeking to obtain greater supplies of medicines from multiple prescribers and/or pharmacies due to the known lack of connected clinical systems in Victoria.

Inadvertently inappropriate prescribing practices from prescribers

Without access to objective prescribing and dispensing data outside of an individual practice's patient management system, prescribers faced situations where they were reliant on patient histories and information that can be difficult to verify. This includes medication name, dose strength and frequency. This process also relied on prescribers manually verifying high-risk medication regimens in time poor general practice settings, particularly where relatively high doses of medicines were being sought by the patient.

Multiple prescribers prescribing high-risk prescription medicines for a patient without knowledge of each other's prescriptions

Some patients attend multiple prescribers for the management and supply of high-risk prescription medicines. Each prescriber may prescribe what appear to be appropriate high-risk medicines in isolation, but unknowingly contribute to an inappropriate supply quantity of high-risk medicines in aggregate when all prescriptions are combined by the patient.

Patients attending multiple prescribers or pharmacies to deliberately obtain greater supplies of medicines

Commonly referred to as 'prescription shopping', patients may seek to obtain prescription medicines from multiple different prescribers and pharmacies without advising each about the supply by the others.

There are multiple adverse situations arising from patients obtaining greater supplies of high-risk prescription medicines. These include:

- increasing patients' dependency on these medicines
- patients on-selling medicines on the black market.

SafeScript background

Prior to the introduction of SafeScript, there was a significant increase in the prescription of, and harms caused by, high-risk prescription medicines in Victoria.

Harms caused by high-risk prescription medicines

Prescription medicine overdose deaths have progressively increased since 2013. The annual number of overdose deaths attributed to pharmaceutical drugs increased each year between 2013 and 2018 (the year prior to SafeScript's implementation, refer to Chart 1).

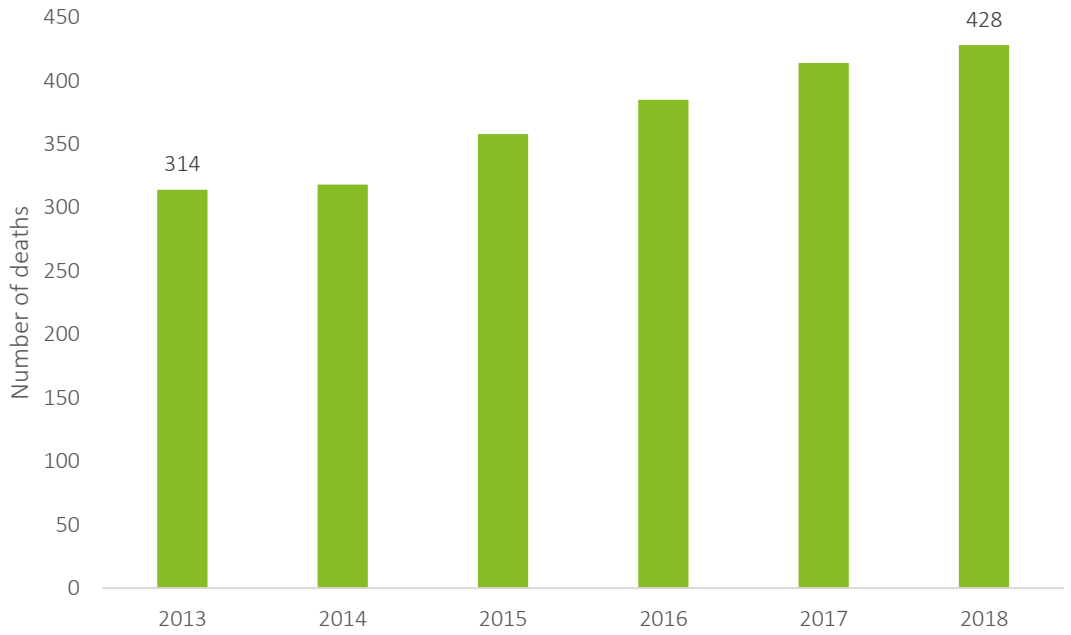
In 2016, it was noted that pharmaceutical medicines contributed to 385 drug overdose deaths in Victoria, which was higher than the number of overdose deaths involving illicit drugs (264)[1] and deaths on roads (291).[2]

By 2018 (the year before SafeScript was voluntarily implemented across Victoria), there were 428 deaths in which pharmaceutical drugs were a contributing drug type.[1]

Between 2012 and 2017, the Victorian Coroner made more than 30 separate findings which either made or supported a recommendation for a real-time prescription monitoring system. This stemmed from the challenges of a lack of collated and coordinated data available to prescribers and pharmacists to inform appropriate and safe supply of high-risk medicines.

Evaluation of Victorian overdose deaths between 2011 and 2013 found that 74% of deaths involved pharmaceutical medicines prescribed by a single prescriber rather than multiple prescribers. In 16% of deaths no source of any contributing pharmaceutical medicine could be identified.[3] This suggests that one of the circumstances where SafeScript may be expected to have a material impact (where a patient received prescriptions from multiple prescribers) accounts for less than 10% of all deaths attributed to a prescription medicine overdose.

Chart 1: annual number of overdose deaths in which pharmaceutical drugs contributed, 2013-2018



Source: Deloitte analysis of Coroners Court of Victoria, *Victorian overdose deaths, 2013-2022* (8 November 2023) <https://coronerscourt.vic.gov.au/sites/default/files/2023-11/CCOV%20-%20Victorian%20Overdose%20Deaths%202013%E2%80%942022.pdf>.

1. Coroners Court of Victoria, Victorian Overdose Deaths, 2013-2022 (8 November 2023) <https://www.coronerscourt.vic.gov.au/new-report-shows-victorian-overdose-deaths-increased-2022#:~:text=A%20new%20report%20released%20today,to%20500%20deaths%20in%202021.>.
2. Department of Health and Human Services, *Real-time prescription monitoring: Project background Q&As (end of 2017).*
3. Turning Point, *Victorian Overdose Deaths: The Role of Pharmaceutical Drugs and Drug Combinations* (February 2017) <https://www.turningpoint.org.au/research/population-health/Victorian-Overdose-Deaths>

SafeScript background

Prior to the introduction of SafeScript, there was a significant increase in the prescription of, and harms caused by, high-risk prescription medicines in Victoria.

Harms caused by high-risk prescription medicines

The annual numbers of hospital presentations and admissions for opioid and benzodiazepine misuse and overdose from 2010-11 to 2016-17 are displayed in Chart 2 and Table 1.

Benzodiazepines

Benzodiazepine-related patient harm was significant in the period prior to the implementation of SafeScript.

While the total number of hospital presentations and admissions trended down prior to the implementation of SafeScript, it remained relatively steady at between 2,000 and 2,500. This represented a significant harm to patients, as well as a material risk of further harms, such as death, from benzodiazepine toxicity in the future.

Opioids

In the period before SafeScript was implemented, opioids increasingly contributed to hospital presentations and admissions. The annual numbers of hospital presentations and admissions for opioid misuse was trending upward from 2010-11 to 2016-17.

While presentations were relatively stable at around 400 per year, admissions significantly increased in 2013-14 to 1,570 and remained above 1,000 through to 2016-17.

The trends in overdose deaths, in combination with the number of hospital presentations and admissions for benzodiazepines and opioids, reflects that both drug types were prominently implicated in medicine-related adverse events prior to the implementation of SafeScript.

Other harms caused by high-risk prescription medicines include absence from work and criminal activity.

Chart 2: number of hospital presentations and admissions for benzodiazepine and opioid misuse and overdose, 2010-11 to 2016-17

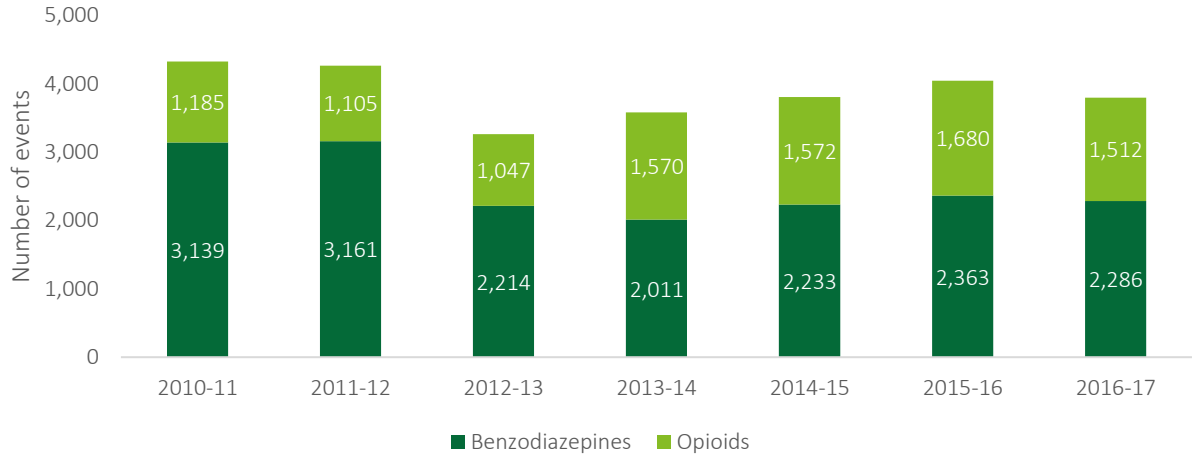


Table 1: number of hospital presentations and admissions for benzodiazepine and opioid misuse and overdose, 2010-11 to 2016-17

Year	Benzodiazepines	Opioids
2010-11	3,139	1,185
2011-12	3,161	1,105
2012-13	2,214	1,047
2013-14	2,011	1,570
2014-15	2,233	1,572
2015-16	2,363	1,680
2016-17	2,286	1,512

Sources: Department of Health, 'Victorian Admitted Episodes Dataset, 2010-11 to 2016-17'.
Department of Health, 'Victorian Emergency Minimum Dataset, 2010-11 to 2016-17'.

04 | About SafeScript

Establishment of SafeScript

SafeScript was established by amendments to the *Drugs, Poisons and Controlled Substances Act 1981*. Changes to the corresponding Regulations clarified the information in SafeScript and the obligations on its users.

Establishment of SafeScript

In 2016, the Victorian Government committed to implementing a real-time prescription monitoring system. Amendments to the *Drugs, Poisons and Controlled Substances Act 1981* (DPCS Act) enabled the establishment of SafeScript.

SafeScript is a technology application that aggregates electronic prescription and dispensing records for defined high-risk medicines to be transmitted in real-time via a centralised database. This database is then be accessed by doctors, nurse practitioners and pharmacists during a consultation with patients to inform high quality clinical care.

SafeScript was borne out of the need to provide prescribers and pharmacists with real-time information on the supply of high-risk medicines so that they could make safer clinical decisions.

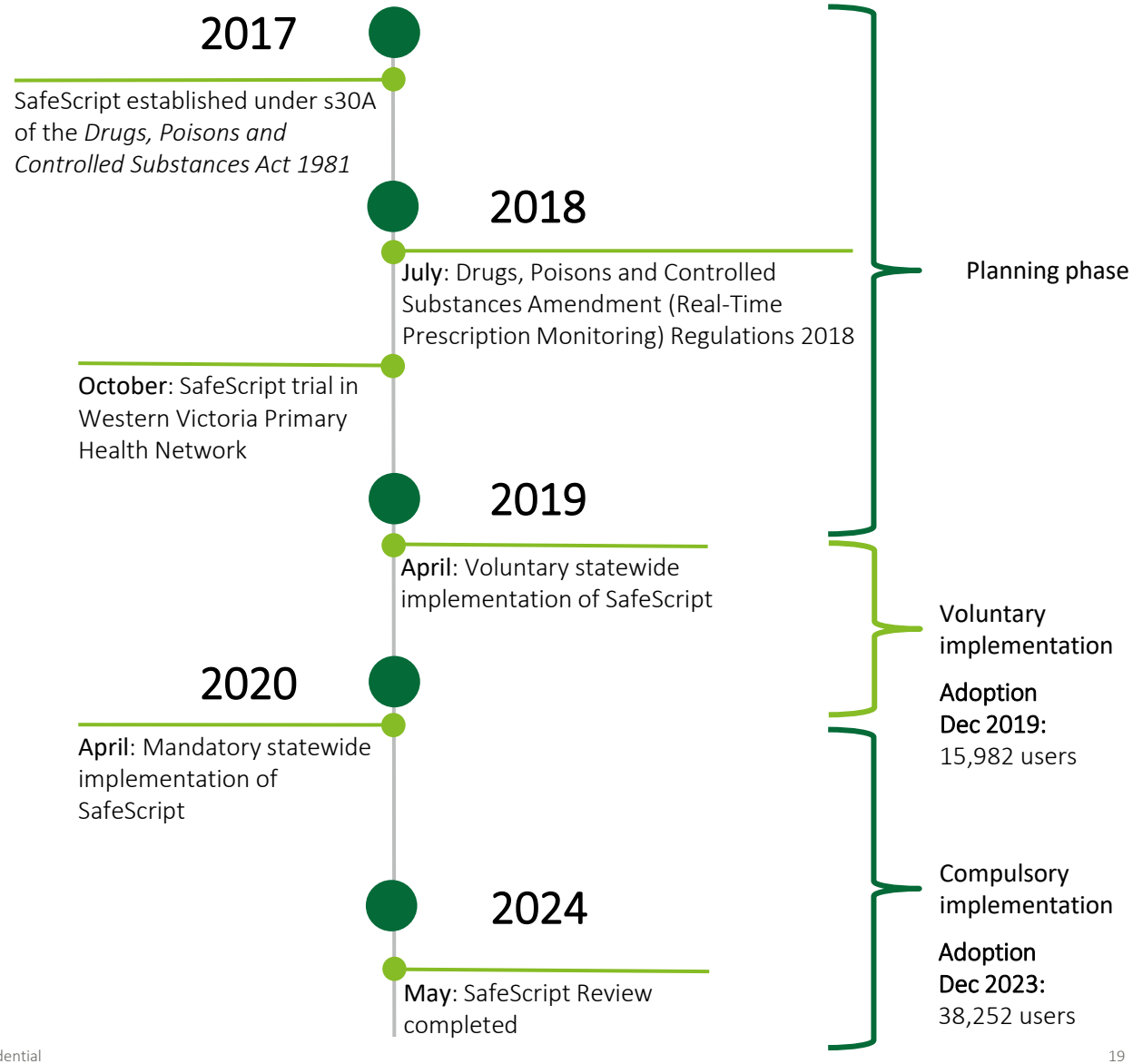
It aims to address or assist the following issues:

- incomplete patient medication histories
- patients increasingly seeking similar care through multiple providers resulting in a lack of coordination of treatment
- the widespread availability and use of prescription Schedule 8 medicines that heightens the risk of dependence amongst vulnerable patients.

The Drugs, Poisons and Controlled Substances Amendment (Real-time Prescription Monitoring) Regulations 2018 were introduced to clarify functional details of SafeScript, including data to be collected through SafeScript, obligations of SafeScript users and circumstances where a user is exempt from using SafeScript.

For prescribers and pharmacists, it is mandatory to check SafeScript prior to writing or dispensing a prescription for a high-risk medicine, unless exemptions apply. The Victorian Government introduced a mandatory use requirement following evidence from Prescription Drug Monitoring Programs in the USA showing improved enrolment and utilisation of the systems and subsequent decreases in prescribing of controlled substances and the number of patients who visit multiple prescribers seeking similar medicines.

SafeScript became fully operational in 2019 and mandatory in 2020.



Scope of SafeScript

SafeScript monitors the prescription and dispensing of a range of high-risk medicines. Its use is mandatory, with some limited exemptions.

Medicines monitored on SafeScript

The list of prescription medicines monitored on SafeScript was determined according to their risk of harm to the community.

Three literature reviews have been conducted to inform the list of medicines monitored through SafeScript. Following one of these literature review in 2023, the list of monitored medicines expanded to include pregabalin, gabapentin and tramadol.

The current list of medicines monitored via SafeScript is represented in Table 2 below.

Table 2: types of medicines monitored in SafeScript

Medication type	Medicine
Strong opioid painkillers	Buprenorphine, codeine, fentanyl, hydromorphone, methadone, morphine, oxycodone, pethidine, tapentadol
Strong medicines for anxiety or sleeping tablets (benzodiazepines)	Alprazolam, flunitrazepam, bromazepam, clobazam, diazepam, temazepam, clonazepam, lorazepam, midazolam, nitrazepam, oxazepam
Other strong sleeping tablets	Zolpidem, zopiclone
Stimulants for ADHD or narcolepsy	Dexamphetamine, methylphenidate, lisdexamfetamine
Other high-risk medicines	Ketamine, quetiapine, pregabalin, tramadol, gabapentin

Source: Department of Health.

Exemptions to the mandatory use of SafeScript

Regulations 132F-H of the Drugs, Poisons and Controlled Substances Amendment (Real-time Prescription Monitoring) Regulations 2018 provide the circumstances which are exempt from using SafeScript.

Exemptions for certain patients

Regulations 132F (for pharmacists) and 132G (for prescribers) exempt SafeScript users from checking SafeScript prior to a prescribing or dispensing event if the patient is:

- an in-patient in a hospital; or
- a patient being treated in an emergency department of a hospital; or
- a prisoner being treated in a prison; or
- a person being treated in a police gaol; or
- a resident being treated in an aged care service.

This exemption exists as patients have limited mobility which significantly mitigates their risk of harm as supply is managed through other centralised mechanisms such as medication charts or single prescriber / pharmacists.

Exemptions for palliative treatment

Regulation 132H exempts SafeScript users from checking SafeScript prior to a prescribing or dispensing event if:

- the person is suffering an incurable, progressive, far-advanced disease or medical condition; and
- the prognosis is of limited life expectancy due to the disease or medical condition; and
- the supply of the monitored supply poison is intended to provide palliative treatment.

This exemption exists as a patient's risk of harm from receiving high-risk medicines is significantly mitigated by their condition's impact on the patient's life expectancy.

Professional obligations for using SafeScript

SafeScript operates under the legislative and regulatory framework outlined in the *Drugs, Poisons and Controlled Substances Act 1981* and the Drugs, Poisons and Controlled Substances Amendment (Real-time Prescription Monitoring) Regulations 2018. The Act and Regulations outline prescribers' and pharmacists' professional obligations for using SafeScript, along with exceptions for use.

Drugs, Poisons and Controlled Substances Act 1981

Drugs, Poisons and Controlled Substances Amendment (Real-Time Prescription Monitoring) Regulations 2018

Prescribers

Section 30C(2) of the Act authorises a medical practitioner or nurse practitioner to access, use and disclose information on the monitored medicines database for:

- providing records and information to the database in accordance with the Act or the Regulations
- accessing records and information in relation to a person for whom a monitored poison may be supplied, prescribed or administered
- accessing records and information in relation to a person in relation to the medical treatment or care of that person
- disclosing information in the database to any registered health practitioner involved in the care of a person whose information is maintained in the database
- any other prescribed purpose.

Regulation 132E identifies the records and information to be provided on SafeScript for prescription events.

Section 30F imposes the requirement for medical practitioners to take all reasonable steps to check SafeScript before the prescription of a monitored medicine, and 100 penalty units for non-compliance (Section 30G for nurse practitioners).

Pharmacists

Section 30C(1) of the Act authorises a pharmacist to access, use and disclose information on the monitored medicines database for:

- providing records and information to the database in accordance with the Act or the Regulations
- accessing records and information in relation to a person for whom a monitored poison may be supplied, prescribed or administered
- accessing records and information in relation to a person in relation to the medical treatment or care of that person
- disclosing information in the database to any registered health practitioner involved in the care of a person whose information is maintained in the database
- any other prescribed purpose.

Regulation 132E identifies the records and information to be provided on SafeScript for dispensing events.

Section 30E imposes the requirement for pharmacists to take all reasonable steps to check SafeScript before the supplying of a monitored medicine, and 100 penalty units for non-compliance (Section 30H for authorised suppliers).

Exemptions

Regulations 132F-H provide the circumstances which are exempt from using SafeScript.

Regulations 132F (for pharmacists) and 132G (for prescribers) exempt SafeScript users from checking SafeScript prior to a prescribing or dispensing event if the patient is:

- an in-patient in a hospital; or
- a patient being treated in an emergency department of a hospital; or
- a prisoner being treated in a prison; or
- a person being treated in a police gaol; or
- a resident being treated in an aged care service.

Regulation 132H exempts SafeScript users from checking SafeScript prior to a prescribing or dispensing event if:

- the person is suffering an incurable, progressive, far-advanced disease or medical condition; and
- the prognosis is of limited life expectancy due to the disease or medical condition; and
- the supply of the monitored supply poison is intended to provide palliative treatment.

05 | Key Findings

Summary of key findings by I By key review question

Key Review Question	Key Finding
1. Is SafeScript easy to use?	1. Stakeholders reported that SafeScript contained the necessary information to support prescribers and pharmacists to meet their legal obligations however it was perceived to have multiple barriers which impacted its ease of use.
2. Has SafeScript achieved its objectives?	2. SafeScript provides prescribers and pharmacists with more information on the medication history of individual patients that promotes safe prescribing and dispensing practices.
	3. SafeScript appears to have reduced the harm from monitored medicines across key metrics that includes reduced number of prescription medicine related: • emergency department attendances • hospital admissions • deaths.
3. Have there been any observable unintended consequences of SafeScript implementation?	4. There does not appear to have been an increase in overdose deaths or hospitalisations from other medicines that have been prescribed as a result of changes to the supply of medications monitored in SafeScript.
	5. Reports indicate an improvement in patient response as the public increases their awareness and understanding of the system. However, there remain examples of poor patient behaviour in response to being refused supply of high-risk medications. The system appeared to work best when there was genuine partnership between patients and prescribers in determining a course of action.
	6. While there is no available evidence to suggest that there have been adverse clinical outcomes associated with SafeScript, there are indications that the system has had an impact on the culture of high-risk medicine supply which could in turn have impacts on patient experience and potentially outcomes. For example, consumer groups noted that General Practitioners were becoming increasingly less likely to see or provide services and supports to patients who required access to SafeScript medications. More broadly, there was a view that the implementation of the system promoted a regulatory rather than patient-centred approach to driving change.
4. Has introducing the system aided the clinical decision-making process?	7. SafeScript has improved prescribers' and pharmacists' visibility of patients' prescribing and dispensing histories, which has informed safer professional practice and provided them with a reliable source of truth with which to dispense medications.
	8. Pharmacists noted that there are instances where they are uncertain about their dispensing decision as SafeScript does not allow for notes to be left by prescribers which creates delays in the decision-making process by requiring them to undertake follow up activities. This was particularly highlighted in instances where medications were provided at discharge from hospitals.

Summary of key findings by I By key review question

Key Review Question	Key Finding
5. Has there been a net benefit associated with introducing SafeScript, and if so, how large is this benefit?	9. While performance measures/KPIs were mixed and the quantitative evidence of benefits was unclear – particularly due to the disruption of COVID-19 – qualitative input from stakeholder suggests that the program has been successful in achieving at least some of its intended benefits.
	10. Stakeholders considered the program had delivered a net benefit despite the costs associated with finding patient information being slightly larger than expected.
6. To what extent are the existing exceptions for use appropriate?	11. The existing exceptions for use appear to be appropriate with support across the sector for the continued use of SafeScript to promote the safe provision of high-risk medications to patients.
	12. There are varied views between stakeholders on the value of the mandatory use of SafeScript. While most stakeholders strongly advocate for its use to support good quality care others felt that a greater level of exemptions would also be appropriate to minimise the burden on specific components of the healthcare sector.

Review Question 1:
Is SafeScript easy to use?

Key Findings

1 Stakeholders reported that SafeScript contained the necessary information to support prescribers and pharmacists to meet their legal obligations however it was perceived to have multiple barriers which impacted its ease of use. These barriers included:

- time required to interpret provided information
- the use of green notifications that still required a check
- poor integration with practice management software
- multi-factor authentication impacting the ability of stakeholders to login.

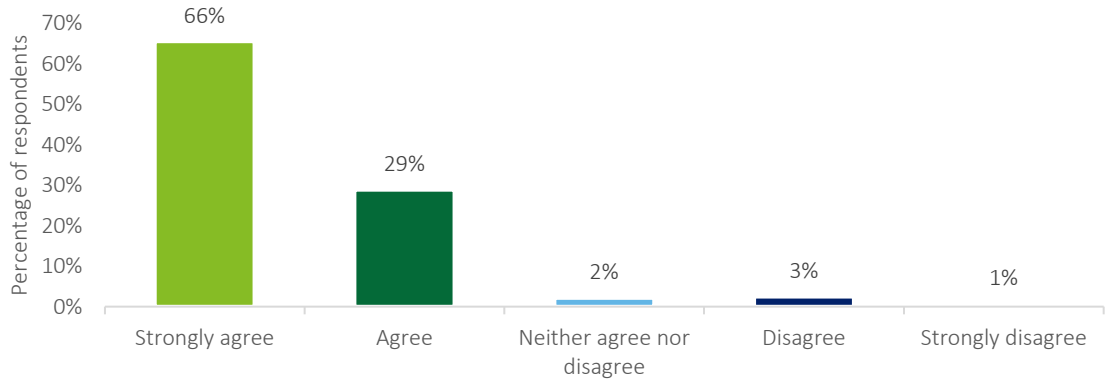
3.1 Is SafeScript easy to use?

SafeScript supports prescribers and pharmacists to meet their professional obligations; however, the functionality of the system would benefit from additional and incremental improvements to ensure it is easy to use and streamlined for workflows.

Key Finding: Stakeholders reported that SafeScript contained the necessary information to support prescribers and pharmacists to meet their professional obligations however it was perceived to have multiple barriers which impacted its ease of use

Almost all surveyed stakeholders (95%, or 1,825 of 1,934) strongly agreed or agreed that they understood the purpose of SafeScript (see Chart 3). They noted that the system helped them to identify the potential abuse of monitored medicines and prevent 'prescription shopping'. As a result, prescribers and pharmacists noted that the system helped them to meet their professional obligations when providing monitored medicines for their patients.

Chart 3: responses to: 'To what extent do you agree with the following statement: I understand the purpose of SafeScript' (n=1,934)



Source: SafeScript Review Survey.

Despite noting that it supported them to meet their professional obligations, many Prescribers and Pharmacists noted that the system was not as intuitive to use as it could be (see Appendix D, Chart 13). For the most part the system contained all the necessary information to support decision making, however stakeholders noted that:

- it required time for them to interpret line level information for individual patients rather than being able to quickly glance at a summarised dashboard type display.
- the traffic light notification system, particularly the use of the green notification, was confusing as prescribers and pharmacists were required to still check green notifications which were often designed as good to go.
- SafeScript was not fully integrated into patient management software, with significant gaps in hospital electronic medical record systems.
- the multi-factor authentication requirements had issues for shared terminals and prescribers/pharmacists who undertook home visits; particularly in regional and rural Victoria.
- Reduced communication channels between users and the Department have impacted how, in particular General Practitioners, were able to interact with the Department on key issues and concerns with SafeScript; this includes changes that were made.

A detailed list of barriers and enablers to use are provided on the following page.

"We 100% agree that there needs to be a monitor for medications that cause harm and dependence. That's a truism really."

- Prescriber and peak body representative

"Those flags to say that this medication has been prescribed more than is recommended is really useful. It's a bit clunky, but it's all there and it's good enough"

- Prescriber and peak body representative

3.1 Is SafeScript easy to use?

Stakeholders identified multiple barriers and enablers impacting the use of SafeScript, including its integration into existing patient management systems and the increased information it provides to support decision making.

SYSTEM BARRIERS

Notification confusion – there was confusion with the traffic light alert system and surprise from some prescribers and pharmacists that they were still required to click through and check when presented with green notifications as their interpretation is that no further checks or confirmations were required.

Workflow integration and time impost – the SafeScript system was not completely integrated into all existing Patient Management Software solutions. Prescribers and pharmacists must click through to the SafeScript portal which could take upwards of 1 minute each time or a cumulation of over an hour a day for higher volume sites.

Self-help – there was limited ability to troubleshoot errors within the SafeScript system without contacting the Department, thereby creating an additional barrier to access.

Layout – the system layout and intuitiveness of the data records impacted prescribers and pharmacists' ability to quickly navigate to the information they required.

National unity – stakeholders in cross border towns and those where patients had accessed telehealth consultations where the prescriber is in another jurisdiction noted the inability of the system to share information across jurisdictions.

RESOURCE BARRIER

Limitations and availability of technology – when providing outreach services or other direct patient care services some prescribers and pharmacists reported that their employers did not provide them with a laptop or other suitable infrastructure to access the SafeScript system which made it impossible for them to be compliant.

Shared terminals – multi-factor authentication created complications for prescribers and pharmacists who were required to share computer terminals. Other users were often already logged in and it was not possible to quickly change profiles.

Duplicate or incorrect patient profiles – there were sometimes duplicate patient profiles or profiles with incorrect information which created uncertainty about the accuracy of the information within SafeScript and its completeness for prescribers and pharmacists.

Training materials – following the initial training module content development, it was felt by some stakeholders that the modules had not maintained contemporary information as the use and application of SafeScript has evolved.

ENABLERS

Increased information – stakeholders noted that the improved transparency of a patient's prescription history supported them to make appropriate and informed clinical and treatment decisions. It also ensures the necessary checks and balances are in place to prevent medication abuse/diversion.

Legal obligation – prescribers and pharmacists are legally obligated to check SafeScript for all monitored medicines which pushes the update and interaction with the system.

Organisational protocols – organisations with defined protocols that outlined the steps for when clinicians were required to check SafeScript noted that this provided clear guidance to prescribers and pharmacists.

Integration – where practice software vendors adequately integrated SafeScript, it supported prescribers and pharmacists to quickly check patient information. Stakeholders noted they were able to remain logged in and it meant minimal diversion from a normal workflow.

Review Question 2: Has SafeScript achieved its objectives?

This section also addresses the following sub-questions:

1. Does it promote safe supply, prescription and dispensing practices?
2. Has it reduced harm from monitored poisons and other high-risk medication?

Key Findings

2	SafeScript provides prescribers and pharmacists with more information on the medication history of individual patients that promotes safe prescribing and dispensing practices, however there is scope to meaningfully increase the information which is provided.
3	SafeScript appears to have reduced the harm from monitored medicines across key metrics that includes reduced number of prescription medicine related: • emergency department attendances • hospital admissions • deaths.

3.2 Has SafeScript achieved its objectives?

SafeScript has supported the safe supply, prescription and dispensing of high-risk medicines by increasing the level of confidence that prescribers and pharmacists have in the oversight of monitored medicines accessed by patients.

Key Finding: SafeScript provides prescribers and pharmacists with more information of the medication history of individual patients that promotes safe prescribing and dispensing practices.

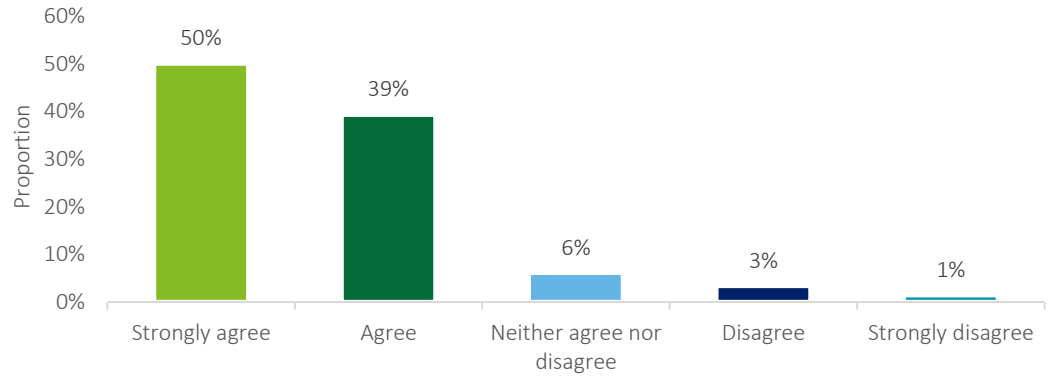
Most survey respondents (79%, or 1,504 of 1,891) of prescribers and pharmacists strongly agreed or agreed that SafeScript has helped them to more safely prescribe or supply high-risk medicines to their patients (see Chart 4 and Chart 5). Most respondents (81%, or 1,519 of 1,891) also strongly agreed or agreed that SafeScript had increased their confidence in the oversight of patients supply of high-risk medicines (see Chart 18 in Appendix D).

Stakeholders reported that SafeScript aided clinical decision making (see Chart 16 Appendix D). Key to this, and the safe supply, prescription and dispensing practice was the traffic light alert system. The rules-based alerts are generated within the SafeScript portal were highlighted by stakeholders as a quick and easy way of understanding potential risk; notwithstanding the fact that there were some unintended consequences from its use (see page 31-34).

Stakeholders also noted that further benefits for the safe supply of medications could also be provided by capturing other contextual information in SafeScript patient profiles. Examples provided by stakeholders included:

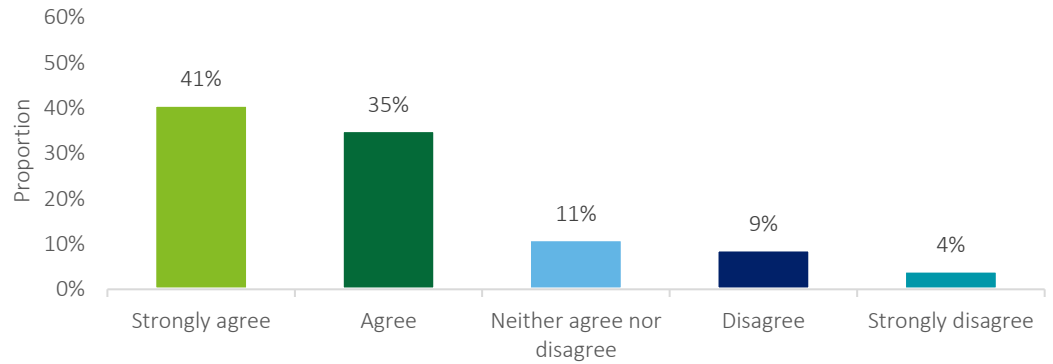
- Schedule 8 permit applications and maintenance processes could be handled via SafeScript. This could include prompting the prescriber when 8 weeks of continuous therapy of a Schedule 8 medicine has elapsed.
- Providing the rationale for other prescribers and pharmacists on the clinical decision and outcome from an amber or red alert prompt for a patient. This was identified as one way to assist with the interpretation of alerts for individual consumers, and as a communication tool between health professionals.

Chart 4: responses to 'To what extent do you agree with the following statement: 'Using SafeScript has helped me to more safely supply high-risk medicines to my patients'?' (n=512)



Source: SafeScript Review Survey.

Chart 5: responses to 'To what extent do you agree with the following statement: 'Using SafeScript has helped me to more safely prescribe high-risk medicines to my patients'?' (n=1,379)



Source: SafeScript Review Survey.

3.2 Has SafeScript achieved its objectives?

Data from SafeScript indicates prescription medicine related ED presentations, hospital admissions and deaths have all reduced indicating that SafeScript is playing a key role in reducing monitored medicine related harm.

Key Finding: SafeScript appears to have reduced the harm from monitored medicines across key metrics that includes reduced number of prescription medicine related:

- emergency department attendances
- hospital admissions
- deaths.

SafeScript is supporting a system-wide reduction in harm from monitored medicines. Noting attribution limitations, key metrics are tracking in positive directions including a:

- 32% reduction in number of patients receiving a combination of monitored medicines that are classified as particularly high-risk (see Chart 15, Appendix B)
- 11.9% reduction in number of prescription medicine related emergency department attendances (see Chart 8, Appendix B)
- 9% reduction in number of prescription medicine related ambulance attendances (see Chart 7, Appendix B)
- 5% reduction in number of prescription-monitored medicine-related deaths (see Chart 6, Appendix B)
- 4% increase in the number of people receiving opioid replacement therapy services for opioid dependence treatment (see Chart 10, Appendix B).

The positive trends were also supported by hospital admission data, which showed a reduction in hospital admissions for overdoses across drug types between 2018-19 and 2022-23 (from 387 to 293 for non-heroin opioids, and from 1,188 to 832 for benzodiazepines)[3] (see page 32 for additional information on AOD related hospitalisation).

Stakeholders reported that SafeScript had changed their prescribing and dispensing habits and as a result they were able to more readily identify patients who were likely stockpiling medications and prevent further prescriptions being provided. This had also resulted in a reduced likelihood of prescribers and pharmacists providing concurrent monitored medicines due to the potentially higher risk of adverse events for patients.

> "In the community in mental health when we've checked SafeScript and seen someone's been stockpiling. Which has been really helpful cause then we're able to have that conversation, and potentially prevent an overdose. We've picked this up because of SafeScript."
> *- User and peak body representative*

3. Department of Health.

Review Question 3: Have there been any observable unintended consequences of SafeScript implementation?

This section also addresses the following sub-questions:

1. Has the implementation of SafeScript led to potentially harmful changes through the supply of other prescription medications?
2. Has there been an observable substitution towards illicit drugs due to SafeScript?
3. To what extent has the use of SafeScript resulted in patients being denied appropriate care?
4. Has there been any other unintended consequences?

Key Findings

4	There does not appear to have been an increase in overdose deaths or hospitalisations from other medicines that have been prescribed as a result of changes to the supply of medications monitored in SafeScript.
5	Reports indicate an improvement in patient response as the public increases their awareness and understanding of the system. However, there are examples of poor patient behaviour in response to being refused supply of high-risk medications. The system appeared to work best when there was genuine partnership between patients and prescribers in determining a course of action.
6	While there is no available evidence to suggest that there have been adverse clinical outcomes associated with SafeScript, there are indications that the system has had an impact on the culture of high-risk medicine supply which could in turn have impacts on patient experience and potentially outcomes. For example, consumer groups noted that General Practitioners were becoming increasingly less likely to see or provide services and supports to patients who required access to SafeScript medications. More broadly, there was a view that the implementation of the system promoted a regulatory rather than patient-centred approach to driving change.

3.3 Have there been any observable unintended consequences of SafeScript implementation?

Overdose deaths and hospitalisations from monitored medicines or illicit drug use does not appear to have increased because of SafeScript.

Key Finding: There does not appear to have been an increase in overdose deaths or hospitalisations from other medicines that have been prescribed as a result of changes to the supply of medications monitored in SafeScript.

Stakeholders perceived that the introduction of SafeScript hadn't resulted in harmful changes in the supply of other prescription medications. Data from the Coroners Court of Victoria between 2013 and 2022 highlighted that the proportion of Victorian overdose deaths involving:

- SafeScript monitored medicines reduced by 8.4% (from 69.6% to 61.2%).[4] The most significant decrease occurred between 2020 and 2022, which coincided with the mandatory requirement for use of SafeScript, but could be confounded by the impacts of the Victorian Chief Health Officer Public Health Directions during the COVID-19 pandemic. The directions limited movement and dramatically reduced attendance at primary care practices, increasing telehealth consults dramatically. In seven months, telehealth consultations of more than five minutes duration, using the government-funded Healthdirect Video Call platform, rose from less than 1,500 in February 2020 to more than 80,000 in September 2020.[5]
- non-target medicines was stable (54.6% to 54.1%) with limited variation year on year.

When asked about a shift in illicit drug use, stakeholders noted that they had limited visibility but anecdotally there didn't appear to have been a substantial shift as a result of SafeScript. The Coroners Court of Victoria data supported this view and highlighted that illicit drugs and/or alcohol showed a steady increase (61.5% of deaths in 2013 to 75% of deaths in 2022). However, the most significant increase occurred prior to SafeScripts' introduction, between 2014 (61.2% of deaths) and 2015 (68.9% of deaths). It should be noted that Heroin was the most common contributing drug type to overdose deaths.

4. Coroners Court of Victoria, *Victorian overdose deaths, 2013-2022* (January 2024) <https://www.coronerscourt.vic.gov.au/forms-resources/publications>.

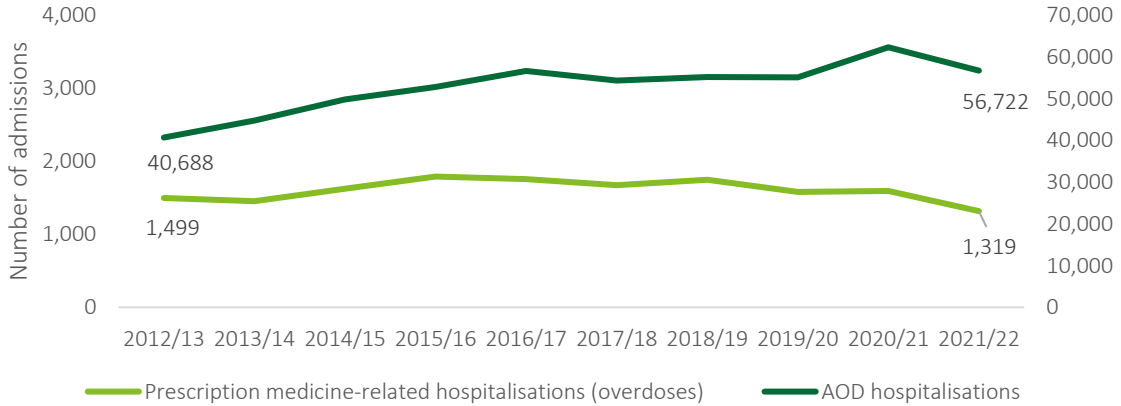
5. Department of Health, *Victoria's digital health roadmap* (August 2021) <https://www.health.vic.gov.au/publications/victorias-digital-health-roadmap>.

Chart 6 highlights a similar trend when assessing AOD and prescription medicine related hospitalisations during the same period 2013 to 2022. There has been a steady increase in AOD related hospitalisations while prescription medicine related hospital admissions (which includes both monitored and unmonitored medicines) have declined slightly.

Given the variation in data across the period, and the relatively small volume of cases, it is difficult to draw definitive conclusions. However, it appears that the introduction of SafeScript may be positively reducing harm from target medicines without causing an equivalent, sustained increase in the substitution of illicit drugs that cause death due to overdoses.

To ensure certainty, additional longitudinal data, that will be obtained during the endpoint review of SafeScript, will be required. But overall, these trends underscore the importance of SafeScript and other harm reduction efforts, education, and support services to prevent and address substance-related fatalities and care needs in the community.

Chart 6: number of AOD related hospitalisations and all prescription (including those not monitored by SafeScript) overdose related hospital admissions



Source: Department of Health, *Victorian Admitted Episodes Dataset*.

3.3 Have there been any observable unintended consequences of SafeScript implementation?

There have been improvements in patient behaviour related to the supply of prescription medications however instances of adverse patient behaviour still exists.

Key Finding: Reports indicate an improvement in patient response as the public increases their awareness and understanding of the system. However, there remain examples of poor patient behaviour in response to being refused supply of high-risk medications. The system appeared to work best when there was genuine partnership between patients and prescribers in determining a course of action.

The introduction of SafeScript has increased the level of scrutiny on the supply of high-risk medications to patients, and patients are aware of this increased focus. As a result, prescribers and pharmacists noted that there had been some improvements in patient behaviour as it related to monitored medicines.

SafeScript provided an opportunity for prescribers and pharmacists to begin a conversation regarding the appropriate use and ongoing need for their medication. This was reported to improve patient empowerment and resulted in conversations of the benefits of undertaking a withdrawal program in the event the medication was no longer required or referral to a specialist (i.e., pain management specialist). It also prompted the prescriber and pharmacist to emphasise the risks of these medications to patients and conduct detailed education on the medication in use, highlighting potential alternates and discussing how a reduction in dosage might be appropriate.

However, it was noted by both prescribers and dispensers that SafeScript does not provide next step guidance for individual patients, particularly those who have received Red or Amber alerts. This meant that prescribers/pharmacists were reliant on their own knowledge of options, instead of being able to access in the moment guidance within SafeScript. They highlighted the potential utility of providing referral information to Alcohol and Other Drug services and supports as something that would further enhance the holistic care they can provide to patients. Noting, that this is beyond the primary scope and objective of SafeScript as a data aggregation solution. However, it does highlight the multi-factorial nature of patient treatment regimens and the important role SafeScript plays.

Despite the success in empowering patients, prescribers and pharmacists both noted that there were still a minority of patients who reacted poorly because of SafeScript conversations. However, they noted that this type of behaviour wasn't just seen with the monitored medicines in SafeScript but more generally related to the supply of medicines.

> "You still have some troublesome patients, but SafeScript helps you get to the facts. Pharmacists can outline the decision-making process with the patient, which I think has improved patient behaviours"
> - *Pharmacist*

3.3 Have there been any observable unintended consequences of SafeScript implementation?

SafeScript was seen by the sector as an enforcement tool rather than a patient safety tool which was impacting the culture of supply and the subsequent availability of the workforce to meet the demand of patients.

Key Finding: While there is no available evidence to suggest that there have been adverse clinical outcomes associated with SafeScript, there are indications that the system has had an impact on the culture of high-risk medicine supply which could in turn have impacts on patient experience and potentially outcomes. For example, consumer groups noted that General Practitioners were becoming increasingly less likely to see or provide services and supports to patients who required access to SafeScript medications. More broadly, there was a view that the implementation of the system promoted a regulatory rather than patient-centred approach to driving change.

The introduction of SafeScript was purported as a patient safety tool however stakeholders noted that the communication about the tool and the requirements associated with it had shifted the focus towards an enforcement or a regulatory mechanism for the Victorian Department of Health and subsequently Australian Health Practitioner Regulation Agency. Stakeholders noted this had an impact on the culture of supplying high-risk monitored medicines; negatively shifting the number of prescribers and pharmacists who were willing to prescribe high-risk monitored medicines.

This was particularly problematic across rural and regional Victoria where the retirement or withdrawal of a prescriber from supporting the prescription of monitored medicines had large flow on impacts to patients. This was further exacerbated by prescriber workforce shortages which meant that prescribers could choose their patients. For example, a GP located in Swan Hill retired from a practice containing 10 other GPs who subsequently refused to service their 60-plus patients requiring monitored medicines. As a result, patients were required to travel over 200km to an alternate prescriber who would safely supply them with their monitored medicines.

While external factors such as other GPs' training to prescribe monitored medicines and their capacity to assume responsibility for more patients may also have contributed to this displacement of patients, it also suggests that there are incidents of significant adverse patient outcomes arising from the perception of SafeScript only operating as a regulatory mechanism rather than a patient safety tool.

Consumer groups also suggested there have been and continue to be instances where prescribers are presented with a 'red alert' or 'flag' and incorrectly inform patients that they are automatically prohibited by law-to prescribe their medications. In some instances, these may result in abrupt changes to the way patients are treated, and therefore negative consequences on patient outcomes (e.g., precipitating withdrawal symptoms and sub-therapeutic care).

Stakeholders also noted that the use of terminology such as 'flag' or 'red flag' had unwanted connotations for patients. Creating feelings that patients had done something wrong, and something that should be corrected through additional education of prescribers and pharmacists.

Consumer groups noted that in both of these unintended consequences, patients had begun to access monitored medicines illicitly; or in a small number of cases substituting with illicit drugs. Acknowledging that this anecdotal feedback has not been observed in data analysed as part of this Review.

> "[SafeScript has] become much more framed around the compliance and enforcement narrative. Once that's into the zeitgeist it's hard to shift, because doctors think they're one slip away from yet another compliance activity…Our members' attitude to SafeScript has been changed from promoting safety to it being another length of rope for them to be hung from."
>
> *- User and peak body representative*

> "Since the implementation we've been getting calls on our support line across the state, and they have just said my doctor has just cut me off. They've seen the red alert and told the patient that they have been red flagged and they can't provide them with their medications. Which is extremely dangerous for lots of these drugs…you just can't do that. It just feels like we're missing the education to go with the system to keep people safe."
>
> *- Consumer group*

Review Question 4: Has introducing the system aided the clinical decision-making process?

Key Findings

7	SafeScript has improved prescribers' and pharmacists' visibility of patients' prescribing and dispensing histories, which has informed safer professional practice and provided them with a reliable source of truth with which to dispense medications.
8	Pharmacists noted that there are instances where they are uncertain about their dispensing decision as SafeScript does not allow for notes to be left by prescribers which creates delays in the decision-making process by requiring them to undertake follow up activities. This was particularly highlighted in instances where medications were provided at discharge from hospitals.

Has introducing SafeScript aided the clinical decision-making process?

SafeScript has provided prescribers and pharmacists with greater information about patients' medication histories.

Key Finding: SafeScript has improved prescribers' and pharmacists' visibility of patients' prescribing and dispensing histories, which has informed safer professional practice and provided them with a reliable source of truth with which to dispense medications.

Prescribers and dispensers reported that the information presented in patients' medicine histories allowed them to contextualise and understand their circumstances.

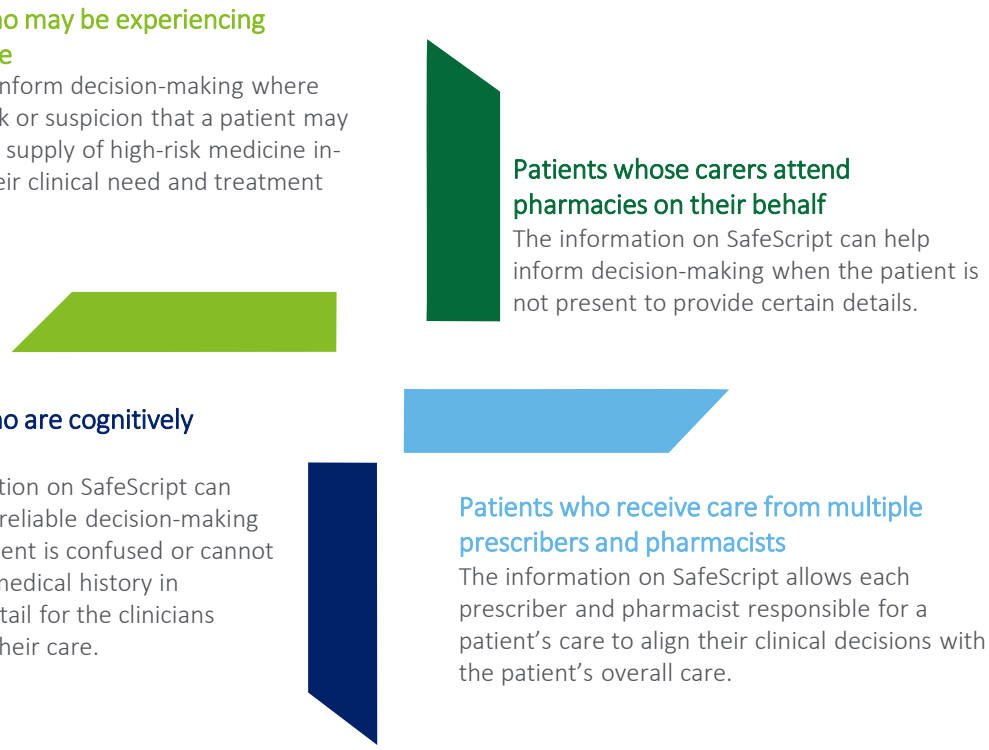
Prior to the implementation of SafeScript, there was no readily available aggregated information accessible to all prescribers and pharmacists displaying a patient's history relating to high-risk medicines. Stakeholders indicated that this represented a significant information gap, which undermined prescribers' and pharmacists' confidence in their clinical decision-making.

Stakeholders broadly indicated that the information on SafeScript was useful for informing their clinical decisions. Most survey respondents (68% or 1,290 of 1,891) either agreed or strongly agreed that SafeScript helped them make better clinical decisions (see Chart 16, Appendix D).

Information like the patient's prescription history and the prescriber's details were particularly valuable for understanding the patient's pattern of behaviour pertaining to high-risk medicines, which in turn allowed prescribers and pharmacists to make more confident clinical decisions. Prescribers and pharmaceutical stakeholders also observed that users adding qualitative notes with each supply event provided could support each subsequent user with greater information on the narrative around the patient's medication history, which enabled even better clinical decision-making. However, it is important to note that this would come with additional system risks and regulatory requirements.

The information captured and presented in SafeScript has particularly assisted in verifying information for some specific patient cohorts, at the time of prescribing to guide decision-making. These are captured in Figure 1.

Figure 1: specific patient cohorts where the information on SafeScript has aided clinical decision-making



"The feedback…is that [SafeScript] is a significant game-changer. Previously we had no idea why patients had scripts, and now we have SafeScript and My Health Record which have really helped contextualise and give meaning to the script."
- Pharmacist

Has introducing SafeScript aided the clinical decision-making process?

SafeScript's colour-coded notification system was broadly considered useful for clinical decision-making. However, there are also some circumstances or consequences around the process which may detract from its utility to clinicians.

The colour-coded notification system on SafeScript has played a valuable role in informing prescribers' and pharmacists' clinical decisions. Most (58%) of review survey respondents indicated that these have contributed to them making better clinical decisions (21% selected 'strongly agree', 37% selected 'agree', refer to Chart 7).

Clinician stakeholders suggested that the colour-coding of notifications according to the risk of patient harm had directed them to relevant information that informed their clinical decision-making. Pharmacists particularly highlighted that the notifications aided their decision-making when they were under time pressure in the public setting of a community pharmacy and assessing the appropriateness of a monitored medicine prescription presented to them.

A further 23% selecting 'neither agree nor disagree' on whether the notification helped them make better clinical decisions, suggesting some uncertainty or indifference towards the impact of the notifications.

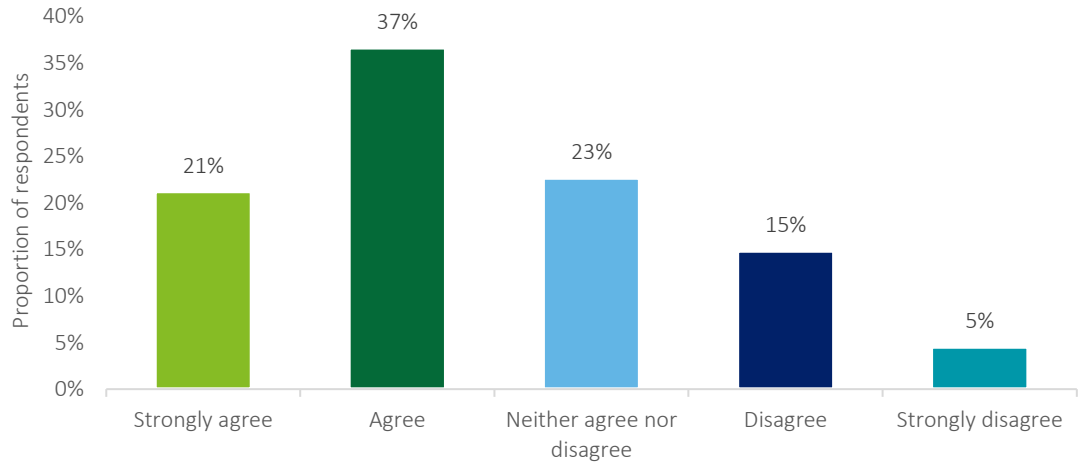
The positive sentiment was not universal however, with 20% of respondents disagreeing that notifications helped inform their clinical decision-making. Survey respondents indicated the rules for generating notifications did not account for multiple prescribers or pharmacists working from a common location/practice where the clinicians would have access to a patient's full medical and/or dispensing records. This means that notifications were inappropriately generated in cases where a patient was not seeking a supply of medicines beyond their clinical need. Separately, some patients who were appropriately supplied with a regular course of high-risk medicines would frequently trigger a red pop-up notification.

These scenarios were thought to unnecessarily increase the overall volume of notifications and increase the risk that clinicians disengage from the key messages and utility of SafeScript due to fatigue, which would adversely impact its ability to aid clinical decision-making.

Some medical representatives and consumer groups also suggested that the notification system had led some clinicians to make clinical decisions which were primarily informed by a perceived aversion to prospective regulatory scrutiny rather than the best interests of their patients (see Key Review Question 3).

> "The information on SafeScript is extremely useful but the notifications system is confusing. It appears that amber notifications are provided to some but not other patients when they should be and as a result the notifications don't guide me much…particularly as I already need to check the system anyway."
> *- Prescriber*

Chart 7: responses to 'To what extent do you agree with the following statement: 'The green, amber and red pop-up notifications help me make better clinical decisions'?' (n=1,891)



Source: SafeScript Review Survey.

Has introducing SafeScript aided the clinical decision-making process?

The extent to which SafeScript aids clinical decision-making is limited by instances of incomplete or incorrect information on patients' profiles.

Key Finding: Pharmacists noted that there are instances where they are uncertain about their dispensing decision as SafeScript does not allow for notes to be left by prescribers which creates delays in the decision-making process by requiring them to undertake follow up activities. This was particularly highlighted in instances where medications were provided at discharge from hospitals.

While stakeholders broadly indicated that SafeScript has aided the clinical decision-making process, many stakeholders also raised that the information on SafeScript was sometimes incomplete. There are two broad circumstances where incomplete information arises, which are captured in the figure to the right.

Prescribers and pharmacists noted that they had encountered examples of incomplete patient information when using SafeScript. However, they also acknowledged that there are instances where they cannot identify all the gaps in each patient's history. This detracted from their overall confidence in SafeScript and reduced their perception of SafeScript as a decision-making aid.

Technical defects associated with the SafeScript software

- Users indicated that information discrepancies occurred between SafeScript, and prescribing or dispensing software. While uncommon, duplicate patient profiles sometimes occurred when the same patient details were entered incorrectly by prescribers and pharmacists. This results in incomplete information recorded in individual profiles and causes confusion for users about the completeness of information and which profile to base their clinical information upon. Further to this is the limited contextual information identified in Key Question 2 section relating to red and amber notifications generated by the system.

Policy decisions to exempt the use of SafeScript in certain circumstances

- When patients are admitted to acute hospitals prescribers are currently exempt from using SafeScript, although dispensing events on hospital discharge are recorded. However, it was noted by stakeholders that having prescribing events on discharge is highly valuable. This would act as a form of communication of treatment plans for all health professionals involved in caring for the patient.

Review Question 5: Has there been a net benefit associated with introducing SafeScript, and if so, how large is this benefit?

Key Findings

9	While performance measures/KPIs were mixed and the quantitative evidence of benefits was unclear – particularly due to the disruption of COVID-19 – qualitative input from stakeholder suggests that the program has been successful in achieving at least some of its intended benefits.
10	Stakeholders considered the program had delivered a net benefit despite the costs associated with finding patient information being slightly larger than expected.

Has there been a net benefit associated with introducing SafeScript?

Estimating any net benefit associated with introducing SafeScript can be viewed as a tradeoff between the administrative burden placed on prescribers and the reduction in harmful events for patients accessing SafeScript monitored medicines.

In 2018, Deloitte estimated the potential benefit to cost ratio of SafeScript with a regulatory framework comparable to that currently in place to be up to 8.17.[6] Even when key variables were varied in sensitivity analysis – such as the time taken to use the system - the estimated net benefit remained positive.

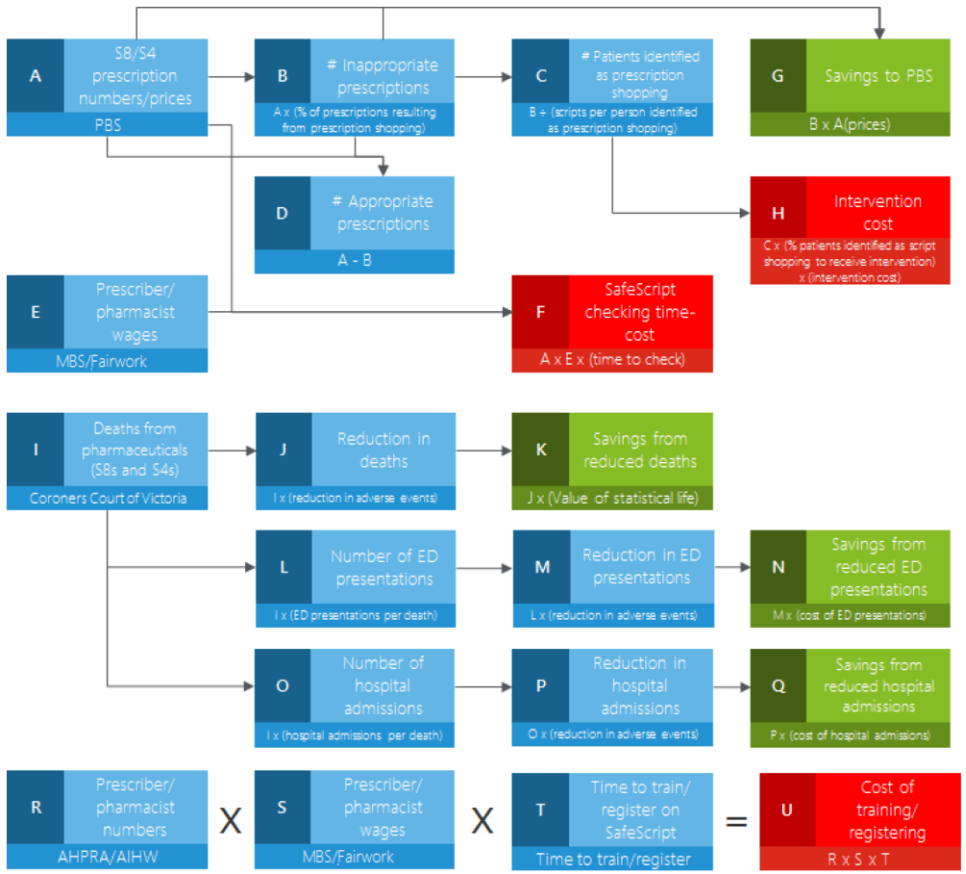
The benefits of SafeScript were modelled on factors such as:

- **Reduced mortality.** Estimated to reduce overdose deaths by 5-12%
- **Reduced hospital admissions.** Ten treatment admissions per overdose death for prescription medication misuse.
- **Reduced emergency department presentation.** 32 emergency department visits for every overdose death from prescription medication misuse.

While costs were largely driven by the cost impost of time taken to check and use the system by prescribers and pharmacists. In the central case of the original modelling this was estimated to be one minute on average.

An update of the modelling was not conducted as part of this evaluation. However, the following pages consider the qualitative and quantitative evidence supporting SafeScript benefits alongside the intervention costs.

Figure 2: framework for estimating benefits and costs of SafeScript (Deloitte, 2018)



6. Deloitte Access Economics, *Regulatory Impact Statement – Proposed Drugs, Poisons and Controlled Substances Amendment (Real-time Prescription Monitoring) Regulations 2018* (2018).

Has there been a net benefit associated with introducing SafeScript?

At the midpoint of its implementation, it appears that SafeScript is achieving its intended benefits with most stakeholders indicating that SafeScript has resulted in improved patients outcomes and reduced harm from monitored medicines.

Key Finding: While performance measures/KPIs were mixed and the quantitative evidence of benefits was unclear – particularly due to the disruption of COVID-19 – qualitative input from stakeholders suggests that the program has been successful in achieving at least some of its intended benefits.

Data collected by the system indicates a mixed effect from SafeScript. Some key performance indicators have shown significant improvements. For example, the number of prescription monitored medicine related deaths has decreased by 5.4% from 2018 to 2022.

There have also been corresponding reductions in ambulance attendances (8.7% decrease from 2018 to 2022), emergency department presentations (11.9% decrease from 2018 to 2022) and hospital admissions (18.2% decrease from 2018 to 2022) related to prescription medications. These reductions suggest that the supply of high-risk medicines is safer than prior to the implementation of SafeScript as the appropriate checks and balances are ensuring that patients have a clinical need for the medication; and that it hasn't been supplied already by another prescriber or pharmacist.

It is important to note that changes in the supply of monitored medicines do not reflect changes in patient safety in themselves. However, changes in supply of monitored medicines can provide a high-level indication of the Victorian community's ability to access them which may impact public safety more broadly.

Additionally, the co-occurrence of SafeScript's implementation with the onset of the COVID-19 pandemic detracts from the extent to which the data trends may reflect the impact of SafeScript (see the list of limitations of this report at page 13).

Some key performance indicators have not seen positive changes. The supply of high-risk medicines is an indicator with negative results, with data showing a 20.4% increase in the number of prescriptions supplied for Opioids, Benzos, Z-drugs however key metrics previously discussed suggest that the supply of high-risk medications is now safer.

There was also a 26.9% increase in the number of patients supplied Opioids medicines. The full analysis of SafeScript key performance indicators is available in Appendix E.

Figure 3: change in indicators where green indicates a positive trend, red is negative and yellow is neutral/unclear (See Appendix E)

KPI	Measure	Data date range	Start and end data points	% of change	Trend
Reduction in multiple provider episodes	Percentage of patients obtaining high-risk medicines from multiple prescribers and pharmacists	September 2018 to December 2023	Start: 3.79% End: 6.56%	2.77% increase	
Reduction in supply of high-risk medicines	Number of prescriptions supplied for Opioids, Benzos, Z-drugs	July 2018 to December 2023 (dispenses data used)	Start: 465,365 End: 560,360	20.41% increase	
	Number of patients supplied Opioids medicines	July 2018 to December 2023	Start: 174,037 End: 220,787	26.86% increase	
	Number of patients dispensed Schedule 8 & 4 benzodiazepine medicines	July 2018 to December 2023	Start: 118,476 End: 118,319	0.13% decrease	
	Average dose for Benzos, Z-drugs	July 2018 to December 2023	Data encompasses 38 individual medicines	Reduction in average dose in 21 out of 38 individual medicines	
	Number of patients receiving a combination of monitored medicines that are classified as particularly high-risk	September 2018 to December 2023	Start: 6,683 End: 4,529	32.23% decrease	
Reduction of prescription-related adverse events Reduction of prescription-related adverse events	Number of prescription-monitored medicine-related deaths	2018 to 2022	Start: 428 End: 405	5.37% decrease	
	Number of prescription medicine related ambulance attendances	2018-19 to 2021-22	Start: 12,059 End: 11,016	8.65% decrease	
	Number of prescription medicine related emergency department attendances	2018-19 to 2022-23	Start: 2,809 End: 2,475	11.89% decrease	
	Number of prescription medicine related hospital admissions	2018-19 to 2022-23	Start: 7,582 End: 6,204	18.17% decrease	
	Number of people receiving opioid replacement therapy treatment services for opioid dependence.	2018 to 2022	Start: 22 (per 10,000 population) End: 23	4.54% increase	
	Number of calls to the Victorian Poisons Information Centre.	2018 to 2023	Start: 1,187 End: 1,443	21.57% increase	
Increase in safer use of high-risk medicines	Number of patients on high opioid doses (>100 MED daily)	September 2018 to December 2023	Start: 9,504 End: 8,760	7.83% decrease	
	Average number of prescriptions for high-risk medicines per patient	July 2018 to December 2023	Start: 1.71 End: 1.85	8.2% increase	
	Number of patients supplied high risk medicine combinations	September 2018 to December 2023	Start: 6,683 End: 4,529	32.23% decrease	
	Percentage of prescribers and pharmacists that are registered to use SafeScript	April 2020 to December 2023 (number of SafeScript users)	Start: 26,660 End: 38,252	43.48% increase	
Increase in compliance with DPCS legislation	Percentage of patient profiles viewed in SafeScript where they had a red/amber notification	April 2020 to December 2023	Start: 39.42% End: 44.63%	5.21% increase	
	Percentage of prescribers and pharmacists that are registered to use SafeScript	April 2020 to December 2023 (number of SafeScript users)	Start: 26,660 End: 38,252	43.48% increase	
Increase in prescribing of Opioid Replacement Therapy	Number of patients on ORT by annual census.	2018 to 2022	Start: 22 (per 10,000 population) End: 23	4.54% increase	

Has there been a net benefit associated with introducing SafeScript?

While data indicates the number of deaths – a key driver of the benefit calculation – reduced, visibility on substitution effects is limited

One of the primary benefits targeted through the introduction of SafeScript was to minimise the risk of harm or death due to medicines monitored within the SafeScript system. Previous analysis have quantified these benefits to be equivalent to more than $717 million for S8 drugs, comprising reduced deaths ($703.2 million), reduced ED presentations ($3.8 million) and reduced hospital admissions ($10.4 million).[7]

Data collected on the number of overdose deaths for which pharmaceutical drugs were a contributing drug group indicates a reduction in deaths from 428 deaths in 2018 to 405 deaths in 2022.[8]

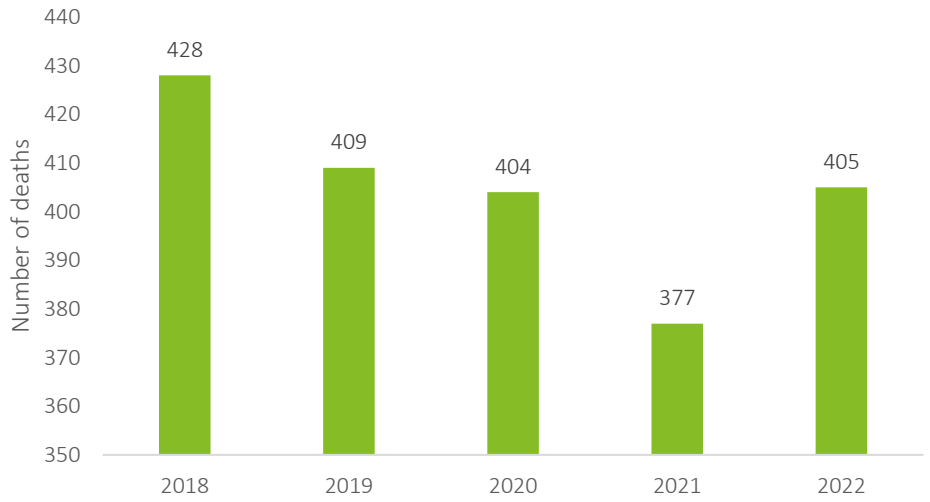
While this alone is a significant finding, it is noted that substitution effects to other drugs exist, and the visibility of magnitude of substitution that has occurred is limited.

Stakeholders reported that patients are less likely to be dependent on the monitored medicines, are able to actively manage their conditions with improved education, and overall this has resulted in a reduction in risk of harm/death.

Nonetheless, this finding suggests the logic of the intervention was sound and is achieving the desired benefits. For example, one stakeholder noted that there was improved visibility over whether a patient was stockpiling medication, a behaviour which may increase the risk of overdose (see page 30).

Stakeholders indicated that their oversight of patients who were prescription shopping significantly increased, reducing the likelihood of patients obtaining dangerous quantities of monitored medicines.

Chart 8: number of overdose deaths for which pharmaceutical drugs were a contributing drug group



Source: Deloitte analysis of Coroners Court of Victoria, *Victorian overdose deaths, 2013-2022* (8 November 2023) <https://coronerscourt.vic.gov.au/sites/default/files/2023-11/CCOV%20-%20Victorian%20Overdose%20Deaths%202013%E2%80%942022.pdf>.

7. Deloitte Access Economics, *Regulatory Impact Statement – Proposed Drugs, Poisons and Controlled Substances Amendment (Real-time Prescription Monitoring) Regulations 2018* (2018).

8. Deloitte analysis of Coroners Court of Victoria, *Victorian overdose deaths, 2013-2022* (8 November 2023) <https://coronerscourt.vic.gov.au/sites/default/files/2023-11/CCOV%20-%20Victorian%20Overdose%20Deaths%202013%E2%80%942022.pdf>.

Has there been a net benefit associated with introducing SafeScript?

Assessing the magnitude of benefits associated with SafeScript is subject to important confounding factors however, qualitative findings from this evaluation show stakeholders feel the benefits of SafeScript still outweigh the costs

The ability to assess the magnitude of benefits derived from SafeScript is hindered by key limitations. Notably, this does not mean that SafeScript has not achieved these benefits, rather that the current data available and the influence of external factors prevent a robust estimation.

The ability to confidently attribute the improvement and net benefit of SafeScript has been influenced by the confounding impact from the global COVID-19 pandemic. SafeScript was implemented in 2018, but only made mandatory in the early April 2020, exactly 20 days after the World Health Organisation declared the outbreak of the novel coronavirus (118,000 cases across 114 countries) a pandemic.

This saw global shifts in the way in which patients accessed care. Victoria was particularly hard hit due to the length of lockdown experienced which resulted in a reduction in patients accessing Primary Care and the acute hospital settings for care such as viral infections, motor vehicle accidents and general chronic conditions. However, the system saw an increase in Emergency Department presentations for conditions such as self-harm, anxiety and substance abuse. In interpreting the net benefit, this should be considered.

In addition to the impact of COVID-19, the are multiple other confounders that are likely to impact the ability of SafeScript to attribute findings to its implementation. This includes the interaction of SafeScript with:

- the Prescription Shopping Information Service and Alert Services provided by Services Australia to minimise prescription shopping.
- My Health Record and its overall use by General Practice as a tool for monitoring the health status of patients.
- ongoing work underway by the Commonwealth Government to improve and harmonise Real Time Prescription Monitoring nationally.

Further, stakeholders noted that it would take a few years for a system such as SafeScript to reach a 'steady state' level of benefit realisation. In early years, you would expect a higher level of intervention but perhaps through awareness, this may decrease to a lower level of misuse over time.

In summary, given the mixed performance of SafeScript relative to several key performance indicators, the scale of benefits achieved by SafeScript is unclear. It is possible that SafeScript has underperformed relative to previously estimated benefits.[9]

However feedback from stakeholders strongly suggests that SafeScript benefits will increase over time. And importantly, feedback from stakeholders confirmed their perception that even if costs were higher than anticipated that they still viewed the program to be on balance positive in its impact.

> "The broad view is that SafeScript offers useful additional information to help inform dispensing decision…but it can add varying levels of additional time and effort to the dispensing process."
>
> *- User and peak body representative*

9. Deloitte Access Economics, *Regulatory Impact Statement – Proposed Drugs, Poisons and Controlled Substances Amendment (Real-time Prescription Monitoring) Regulations 2018* (2018).

Has there been a net benefit associated with introducing SafeScript?

The largest cost associated with the use of SafeScript is the administrative burden placed on users. This time burden was larger than was forecast prior to its implementation, reducing the capacity for SafeScript to provide a timely aid to the clinical decision-making process.

Key Finding: Stakeholders considered the program had delivered a net benefit despite the costs being slightly larger than expected.

Prior to the implementation of SafeScript, Deloitte modelling in 2018 as part of the RIS process estimated it would take, on average, one minute for a user to find the information they needed about a patient.[10]

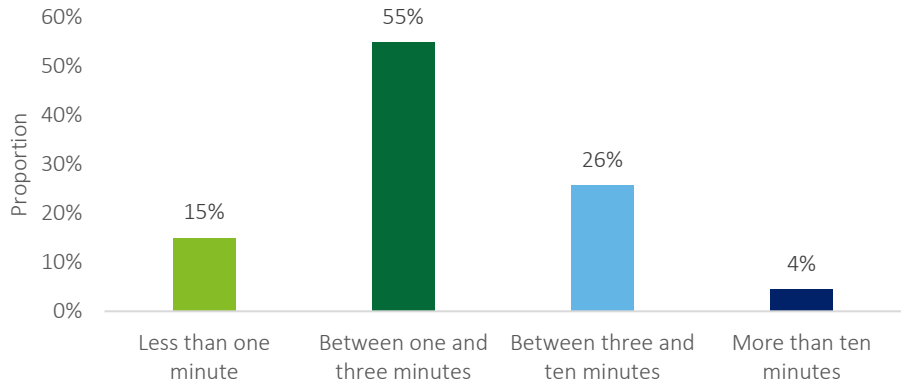
However, 85% (1,607 of 1,891) of survey respondents indicated that it took them longer than one minute to find the information they needed about a patient (Chart 9). This was broadly reinforced by stakeholders who use SafeScript, who suggested that it took around two to three minutes to complete the relevant checks. Notably, some respondents may have also included the time taken to reach a decision. This likely accounts for survey participants who indicated it took 'more than ten minutes'.

Stakeholders who use SafeScript also impressed that the time burden of checking it increased with the volume of patients the user interacted with. Pharmacists suggested that that time burden was particularly pronounced in community pharmacies during peak demand periods for the pharmacist and they were time poor during the dispensing process. This time burden detracts from the extent to which SafeScript aids the timeliness of clinical decision-making process and can negatively impact the uptake and utilisation of the system in the long term.

The administrative time burden should be considered when evaluating the net impact associated with the introduction of SafeScript. Previous estimates of the net benefits of SafeScript estimated that SafeScript checking costs for S8 drugs represented approximately 54% of the total costs of SafeScript, or $71 million.[11] To the extent that the true time burden is closer to two to three minutes, this suggests that the costs of SafeScript are much more significant than initially forecast. However, even sensitivity modelling in the original estimates recognised that the net benefit would remain positive if the time impost were to be over three minutes.

An assessment of the true benefits versus cost should be completed as part of the final evaluation as specified in the Regulatory Impact Statement. This will allow an appropriate time for longitudinal data to substantiate its ongoing trend and confirm the positive benefit outlined as part of the mid-term evaluation through an analysis with a counterfactual.

Chart 9: responses to 'Approximately how much time on average does it take you to find the information you need about a patient on SafeScript?' (n=1,891)



Source: SafeScript Review Survey.

"It was suggested that it would take a minute to check SafeScript. It takes longer, it's a minute and a half to open it, then another minute to check it."

- User and peak body representative

10, 11. Deloitte Access Economics, *Regulatory Impact Statement – Proposed Drugs, Poisons and Controlled Substances Amendment (Real-time Prescription Monitoring) Regulations 2018* (2018).

Has there been a net benefit associated with introducing SafeScript?

Increases in time to assess Schedule 8 Permit Applications has been valuable as the additional information has supported improved decision making capability by regulators within the Victorian Department of Health.

Regulators within the Victorian Government also noted that there had been an increase in the amount of time required to issue permits since the establishment of SafeScript. However, regulatory stakeholders indicated that the larger quantity of prescribing and dispensing data made available through SafeScript has been beneficial in the assessment of Schedule 8 permit applications. This has seen a reduced need for multiple phone calls and communications to prescribers and pharmacists in order to obtain information required to make assessments. Improved access to meaningful information for assessments through SafeScript has resulted in each application taking longer to process, however this has supported improved decision making capability. Despite the increased time to assess Schedule 8 permit applications, there hasn't been a proportional increase in capacity within the regulatory team which will likely continue to constrain capacity without future changes to processes.

> "The establishment of SafeScript has been very valuable – we now have a lot more information with which to make an informed decision rather than having to undertake other research before providing a permit."
>
> *- Regulator*

Review Question 6: To what extent are the existing exceptions for use appropriate?

Key Findings

11	The existing exceptions for use appear to be appropriate with support across the sector for the continued use of SafeScript to promote the safe provision of high-risk medications to patients.
12	There are varied views between stakeholders on the value of the mandatory use of SafeScript. While most stakeholders strongly advocate for its use to support good quality care others felt that a greater level of exemptions would also be appropriate to minimise the burden on specific components of the healthcare sector.

Exemption from the use of SafeScript

The current exemptions for use appear to be appropriate however there is conflicting views on the usefulness of the mandatory nature of the system.

Key Finding: The existing exceptions for use appear to be appropriate with support across the sector for the continued use of SafeScript to promote the safe provision of high-risk medications to patients.

Since April 2020, the use of SafeScript has been mandatory except for a small number of exemptions. There are exceptions in circumstances that include when treating patients admitted to hospitals, prisons, police gaols, aged care and palliative care settings. For most consulted stakeholders these were considered appropriate exemptions for use. However, there were several alternate views that included:

- there should be no exemptions for use as the inappropriate prescription and dispensing of medications to patients had ongoing potential to cause harm and as a result the system should be used across all settings.
- the lack of SafeScript use when patients were in hospitals sometimes created discrepancies or delays in community services having visibility of the medications provided during an inpatient episode of care. This was usually the result of delayed discharge summaries and resulted in some stakeholders suggesting that SafeScript should be used in hospital settings.
- primary care occasionally provided palliative care to patients; however they were not included within the palliative care setting and as such they perceived that they were still required to use SafeScript which was seen to be of low value by stakeholders. Despite this perception, SafeScript is not required to be checked and suggests that further training and communication is required to ensure that primary care physicians providing palliative care are aware they do not need to check SafeScript to prescribe monitored medicines.
- instances where prescribers conducted home visits and generated paper-based prescriptions without an electronic duplicate, and therefore no data upload to SafeScript created loopholes in the current end-to end medication supply workflows. It would be beneficial for there to be a mechanism for the recording of these prescriptions by the prescriber while they are outside of their regular practice infrastructure.
- emergency treatment exemptions should apply to ensure that prescribers and pharmacists can provide immediate emergency treatment for an acutely serious or life-threatening illness or injury.
- the requirement for these exemptions to be nationally consistent to support practitioners who undertake cross-border work.
- it was noted that not all prescribers have access to SafeScript. For example, medication endorsed midwives do not have access to SafeScript aligned with their scope of practice. As the range of health professionals with prescribing rights expands (noting there is early planning for expanded roles for general nursing graduates in the future to include a prescribing ability) the access to SafeScript should reflect these changes.
- that health professionals who do not prescribe or dispense, e.g. allied health professionals, can still benefit from read-only access to SafeScript data as part of their professional scope of practice. This could include a Physiotherapist understanding analgesic use post surgery as a measure of how a patient is recovering and participating in their rehabilitation program.

Exemption from the use of SafeScript

Stakeholders had mixed views on the mandatory requirement for use of SafeScript.

Key Finding: There are varied views between stakeholders on the value of the mandatory use of SafeScript. While most stakeholders strongly advocate for its use to support good quality care others felt that a greater level of exemptions would also be appropriate to minimise the burden on specific components of the healthcare sector.

There were also a number of interviewed stakeholders who noted that they didn't believe SafeScript should be mandatory. They believed that it prevented prescribers/pharmacists from using their clinical judgement and resulted in an over-reliance on a technological tool which caused behaviours that weren't always in the best interest of their patients. Specific concerns highlighted by stakeholders included:

- there is a risk of bias in how the SafeScript data is interpreted, particularly where a patient's specific prescriber is not involved and some people with chronic pain or legitimate needs for certain medications might be flagged unfairly, leading to restricted access or reluctance from GPs to prescribe.
- a shift to the monitoring and supply of medications to patients rather than the monitoring the misuse of medications.
- increased disruption to the workflows required by prescribers and dispensers to complete their core business.
- limited effectiveness in isolation when addiction treatment options have long waitlists impacting prescribers and pharmacists ability to safely support patients to transition.

06 | Recommendations and Next Steps

Introduction to recommendations and summary of approach

There are opportunities to improve the operation and design of SafeScript following from the findings of this Review

The Review identified several opportunities to improve the effectiveness and role of SafeScript now and into the future. These recommendations are aligned to the key findings detailed throughout the Review and designed to help ensure that SafeScript is able to continue to meet its objectives.

In recognising that the Department will require collaboration from all sector providers to address the findings and conclusions, the recommendations have been developed with reference to five categories of recommended change:

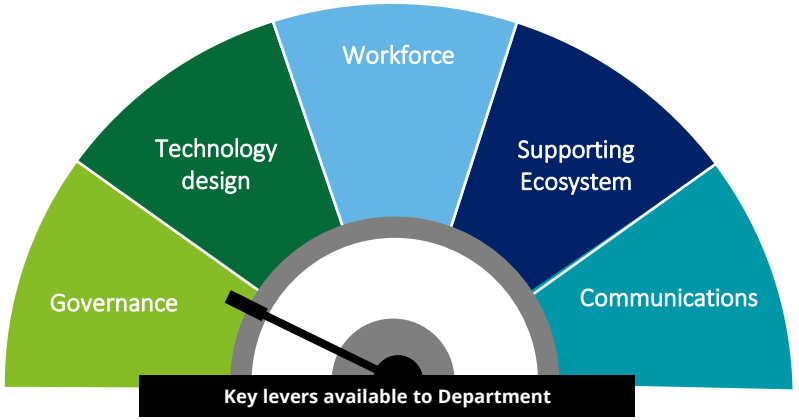
- **Governance.** The regulatory and reporting structures which set and control the parameters of the SafeScript program.
- **Technology design**. The design and deployment of SafeScript technology.
- **Workforce.** The workforce and workflow elements of the SafeScript program.
- **Supporting ecosystem**. The external policy and referral network that enable the realisation of program objectives.
- **Communications.** Communications to patients and the public which inform the culture around the use of SafeScript and high-risk medicines more broadly.

The section provides the Department with:

- recommendations to support the continued improvement of SafeScript mapped against those that are a high or low priority
- direct implementation considerations and enablers for each of the provided recommendations.

It is acknowledged that some recommendations will be influenced by previous policy decisions that have underpinned SafeScript. Examples of these cover the range of health professionals who will have access to SafeScript and the circumstances, and the data and information captured and presented in the system. The recommendations presented in this section are intended to be suggestions for consideration by the Department within the broader policy environment that SafeScript operates within.

Figure 4: categories of recommended change



Recommendations have been categorised as either Higher or Lower Priority. In determining the priorities, the following definitions were considered:

- **Higher Priority** – implementation will address a key challenge that have been consistently highlighted by stakeholders or through data analysed as part of this Review.

- **Lower Priority** – implementation will require a number of hurdles to be overcome or additional considerations; including whether the change impost is possible within current constraints.

Summary of recommendations

	#	Recommendation	High Priority	Low Priority
Governance	1	Continue program funding and operations of SafeScript in Victoria	X	
	2	Use of data to inform population-based insights and research	X	
	3	Continue regular review of the list of monitored medicines		X
Technology design	4	Encourage improved integration of SafeScript with patient management systems for prescribers and dispensers to support improved workflow and accessibility		X
	5	Improve analytics and presentation of data to assist users to more quickly interpret information	X	
	6	Better integrate permit application and maintenance processes into SafeScript	X	
	7	Consider the development of a mobile application to support users to access the system 'on the go'		X
	8	Explore opportunities to enhance the communication and information exchange within SafeScript to enable the upload of notes and contextual information to inform better clinical decision making		X
Workforce	9	Review approved access and consider inclusion of a broader range of professional users (e.g., Allied Health practitioners)	X	
	10	Invest in the promotion of the SafeScript workforce training and materials to improve user understanding of the benefits of the system, their obligations to use the system, and how to use the system	X	
	11	Design better supports (training and communication tools) for prescribers and pharmacists to support their patients to find appropriate referral pathways after an intervention is made		X
	12	Emphasise the focus of SafeScript as a patient safety and outcomes tool rather than something that is focused on regulatory enforcement in training and communications to users	X	
Supporting ecosystem	13	Support moves towards a nationally harmonised approach (including consistent lists of monitored medicines and cross-jurisdictional information sharing) to real-time prescription monitoring	X	
Comms	14	Ensure the public remain informed and aware of the existence, role and benefits of SafeScript		X

Opportunities for Department of Health | Detail and considerations

Opportunities to improve governance of SafeScript

#	Recommendation	Detail and considerations
Governance		
1	Continue program funding and operation of SafeScript in Victoria	The Review supports the continued use of SafeScript as the real time prescription monitoring tool for Victoria. While noting that the following recommendations have been designed to strengthen the ability of the system to meet its objectives.
2	Use of data to inform population-based insights and research	A key objective of SafeScript is to better inform research into high-risk medicine use. Data collected through SafeScript could be used to inform population level research particularly if linked to other health system data (VAED, CCV) to create a holistic picture of high-risk medicine use.
3	Continue regular review of the list of monitored medicines.	The Department should continue to conduct regular and defined review cycles of the list of monitored medicines, informed by feedback from the sector on emerging medication usage patterns in the community. There will also be benefit from harmonisation of real-time prescription monitoring solutions nationally. Enabling sharing of information across jurisdictions for patient treatment, same scope of medicines being monitored, and optimising patient information to enable enhanced clinical treatment decisions.

Opportunities for Department of Health | Detail and considerations

Opportunities to improve the technology design and application of SafeScript

#	Recommendation	Detail and considerations
Technology Design		
4	Encourage improvement of SafeScript with patient management systems for prescribers and dispensers to support improved workflow and accessibility	Updated workflows which more closely guide prescribers and pharmacists to fulfill their professional obligations will be important. Seamless interfacing between PMS and SafeScript to action notifications will be beneficial. Consider simplifying login and access requirements while balancing privacy and encryption requirements. Work with software vendors to further integrate access to SafeScript in Patient Management Solutions for both prescribers and dispensers, with a particular emphasis on electronic medical records in acute hospitals.
5	Improve analytics and presentation of data to assist users to more quickly interpret information	Prescribers and pharmacists reported the current display of prescription and dispensing records for individual patients doesn't allow for quick reconciliation. It requires them to manually link and attribute records which is time consuming and detracts from the user experience. The Department could work with the Commonwealth and sector stakeholders to develop intelligence products that support the decision making of prescribers/pharmacists by providing patient specific dashboards that highlight key information on patient prescription history in an easy to digest format. Additionally, it was suggested the 'traffic light flags' should be informed by analytics output for individual patients that overlays warning points for patients at elevated risk of dependence and harm from monitored medicines and this is proactively flagged for clinicians, rather than a simple rules-based alert system. This will require national advocacy to ensure that national consistency is achieved and implemented aligned to recent changes in policy.

Opportunities for Department of Health | Detail and considerations

Opportunities to improve the technology design and application of SafeScript

#	Recommendation	Detail and considerations
Technology Design		
6	Better integrate permit application and maintenance processes into SafeScript	Schedule 8 permit applications and maintenance processes could be handled via SafeScript. This could include prompting the prescriber when 8 weeks of continuous therapy of a Schedule 8 medicine has elapsed. There is also an opportunity to further explore Schedule 8 permits and their interaction with SafeScript, possibly in the form of a separate review or a systematic approach to continually assessing the relevance and utility of permits to the Department. We note that there is work already underway by the Department to embed the ability for prescribers to apply for Schedule 8 permits within SafeScript.
7	Consider the development of a mobile application to support users to access the system 'on the go'	The development of a mobile application that supports prescribers and pharmacists to use the system on the go. This should also consider the role of FAQs in supporting users to access the existing portal through Android or Apple interfaces.
8	Explore opportunities to enhance the communication and information exchange within SafeScript to enable the upload of notes and contextual information to inform better clinical decision making	For example, clinical decision and outcome from an amber or red notification prompt for a patient. This was identified as one way to assist with the interpretation of alerts for individual consumers, and as a communication tool between health professionals. This should also be cognisant of the role of SafeScript within the sector and opportunities for prescribers and pharmacist to use existing systems to collaborate together and share clinical information such as through MyHealth Record.

Opportunities for Department of Health | Detail and considerations

Opportunities to address challenges for workforce and workflow

#	Recommendation	Detail and considerations
Workforce		
9	Review approved access and consider changes to legislation to include a broader range of professional users (e.g., Allied Health)	Not all health professionals who prescribe medicines as part of their scope of practice have access to SafeScript. Health professionals beyond prescribers and dispensers can benefit from accessing the data and information contained in SafeScript to inform their role in managing a patient's overall care.
10	Invest in workforce training and materials, and promotion of training to improve user understanding of the benefits of the system, their obligations to use the system, and how to use the system	Continued and updated training and supporting materials to provide system users with an understanding of why, how and when to use the system. Increased promotion of training to encourage further completion of training modules.
11	Enable prescribers and pharmacists to support their patients to find appropriate referral pathways after an intervention is made	Feedback from stakeholders was that further benefit would be derived if the data could be utilised to suggest the next best treatment option or referral pathway for patients and to support prescribers and pharmacists with tools for discussing access to these pathways with their patients. Integration with the National Health Services Directory could be considered to support this.
12	Emphasise the focus of SafeScript as a patient safety and outcomes tool rather than something that is focused on regulatory enforcement in training and communications to users	There were reports of cases where patients have been denied access to treatment by prescribers or pharmacists because of the notification system, or the perception that SafeScript is used as a regulatory compliance tool, rather than a clinical decision support tool. The Department can undertake an education campaign with prescribers and pharmacists to refresh their knowledge of the role and purpose of SafeScript in the context of providing appropriate therapeutic care to patients.

Opportunities for Department of Health | Detail and considerations

Opportunities to invest and expand the supporting ecosystem around the SafeScript program

#	Recommendation	Detail and considerations
Supporting Ecosystem		
13	Support moves towards a nationally harmonised approach (including consistent lists of monitored medicines and cross-jurisdictional information sharing) to real-time prescription monitoring	There will be benefit from harmonisation of real-time prescription monitoring solutions nationally. Enabling sharing of information across jurisdictions for patient treatment, same scope of medicines being monitored, and optimising patient information to enable enhanced clinical treatment decisions. The Department could consider its role in supporting a nationally harmonised approach to real time prescription monitoring or other opportunities to integrate with platforms used in other jurisdiction to support prescribers and pharmacists who undertake cross border work Collaboration will be required with other jurisdictions and the Commonwealth governments to enable the harmonisation of the roles and scope of real time prescription monitoring solutions.

Opportunities for Department of Health | Detail and considerations

Opportunities to continue and expand on public messaging and culture/perception of high-risk medicine use

#	Recommendation	Detail and considerations
Communications		
14	Ensure the public remain informed and aware of the existence, role and benefits of SafeScript	The introduction of SafeScript was accompanied with a high-profile public messaging campaign. It is important the public remain aware of the existence and benefit of SafeScript and that this messaging is designed with reference to a culture of patient safety and safe use of high-risk medicines rather than compliance or policing of medicine use (a negative stereotype).

07 | Appendices

07 | Appendix A: List Of Consulted Stakeholders

List of consulted stakeholders

This Review gathered insights from stakeholders across the health sector to inform its analysis, findings and recommendations. The list of stakeholders who participated in the consultation process is below.

Table A.1: list of consulted stakeholders [1/2]

Stakeholder	Number of representatives
Australian Health Practitioner Regulation Agency	7
Australian Nursing and Midwifery Federation	3
Australian Society of Anaesthetists	3
Avant	1
Chapter of Addiction Medicine	1
Chemist Warehouse Group	2
Coroners Court of Victoria	2
Harm Reduction Victoria	1
MDA National	1
Medical Indemnity Protection Society	1
MIGA	2
Pain Australia	1
Pharmaceutical Defence Limited	1
Pharmaceutical Society of Australia	1
Pharmacy Guild of Australia	2
Reconnexion	1
Royal Australian College of General Practitioners	2
SafeScript regulators	10
Self Help Addiction Resource Centre	1

List of consulted stakeholders

This Review gathered insights from stakeholders across the health sector to inform its analysis, findings and recommendations. The list of stakeholders who participated in the consultation process is below.

Table A.1: list of consulted stakeholders [2/2]

Stakeholder	Number of representatives
Society of Hospital Pharmacists of Australia	5
The Royal Australian and New Zealand College of Psychiatrists	1
Victorian Alcohol and Drug Association	3
Victorian Pharmacy Authority	1

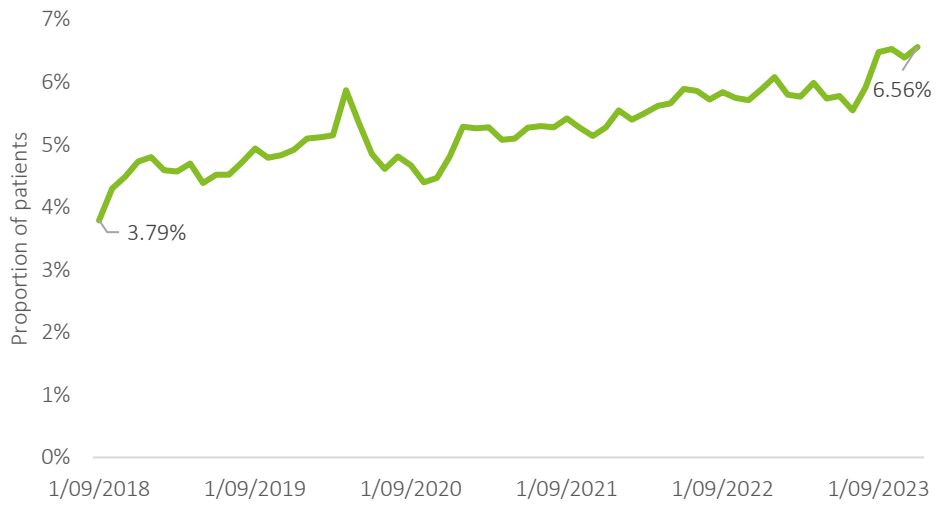
07 | Appendix B: SafeScript Data Analysis

SafeScript Data Analysis

The extent to which SafeScript is realising its intended benefits can be measured using data provided to the Review, along with some publicly available data.

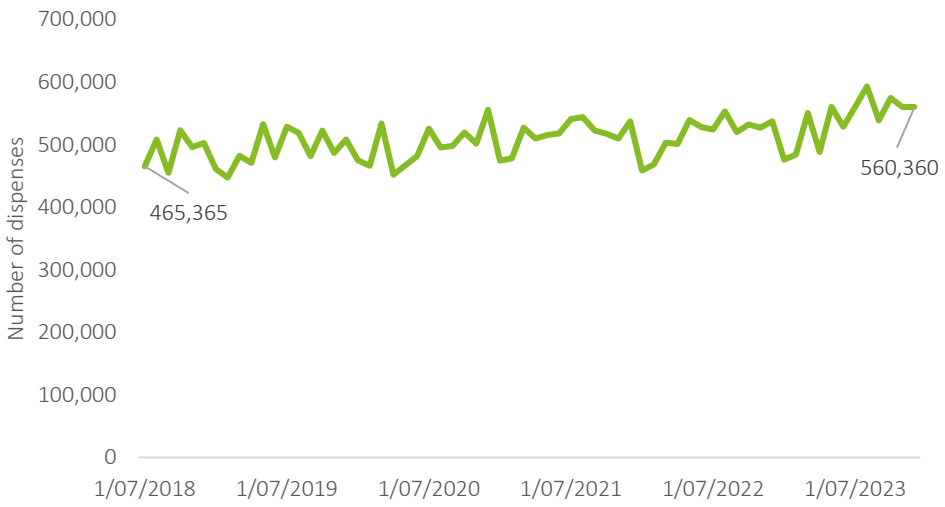
Benefit 1: Minimise the risk of harm or death due to medicines monitored in the system as a result of the implementation of SafeScript.

Chart B.1: proportion of patients obtaining in-scope SafeScript prescription medicines from multiple prescribers and pharmacists



The increase in the proportion of patients obtaining in-scope SafeScript prescription medications has likely increased as a result of the introduction for mandatory use and additional monitored medicines pregabalin, gabapentin and tramadol in 2023.

Chart B.2: number of dispenses supplied for opioids, benzodiazepines, Z-drugs



Source: SafeScript administrative data.

SafeScript Data Analysis

The extent to which SafeScript is realising its intended benefits can be measured using data provided to the Review, along with some publicly available data.

Benefit 1: Minimise the risk of harm or death due to medicines monitored in the system as a result of the implementation of SafeScript.

Chart B.3: number of unique patients supplied opioids medicines

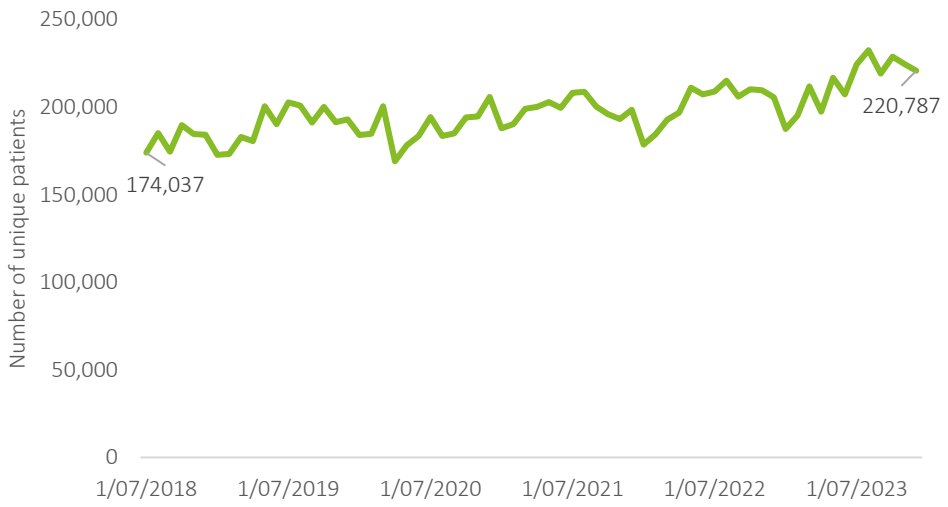
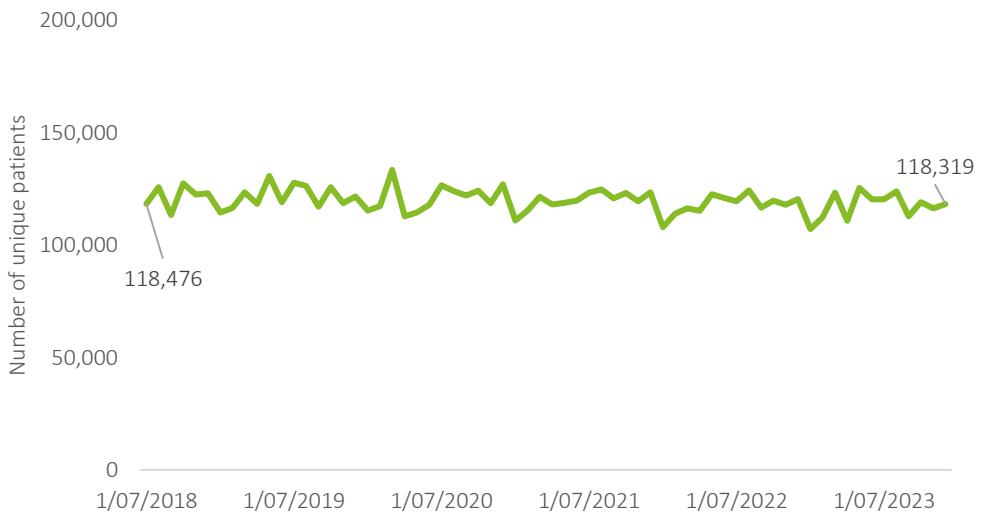


Chart B.4: number of unique patients dispensed Schedule 8 & 4 benzodiazepine medicines



Source: SafeScript administrative data.

SafeScript Data Analysis

The extent to which SafeScript is realising its intended benefits can be measured using data provided to the Review, along with some publicly available data.

Benefit 1: Minimise the risk of harm or death due to medicines monitored in the system as a result of the implementation of SafeScript.

Chart B.5: number of unique patients receiving a combination of monitored medicines that are classified as particularly high-risk

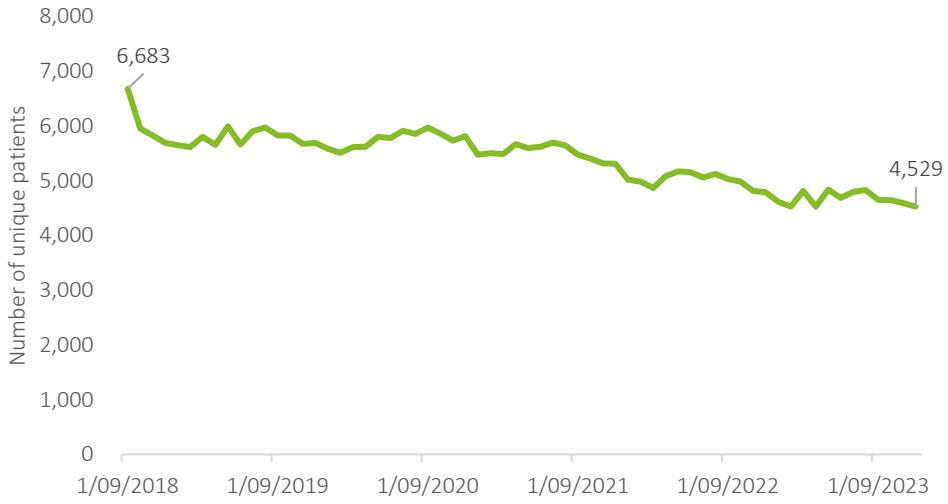
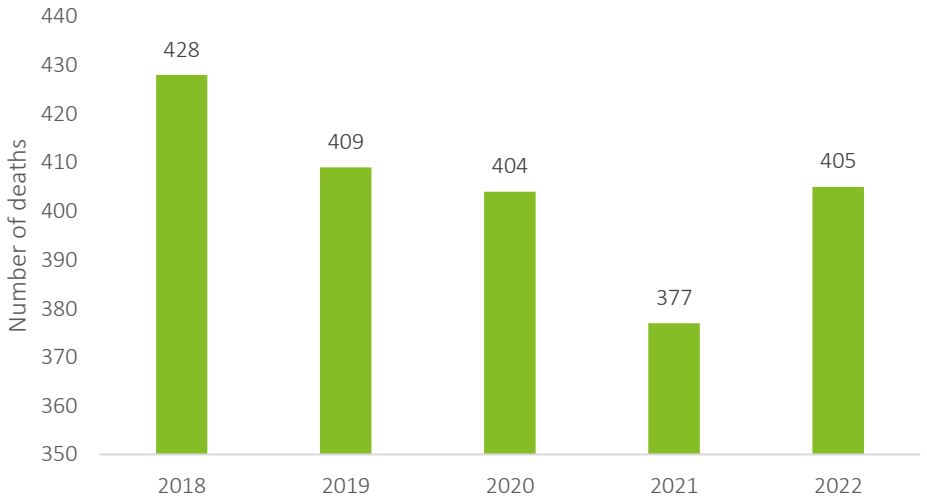


Chart B.6: number of overdose deaths for which pharmaceutical drugs were a contributing drug group



Sources: SafeScript administrative data.
Coroners Court of Victoria, *Victorian overdose deaths, 2013-2022* (8 November 2023) <https://coronerscourt.vic.gov.au/sites/default/files/2023-11/CCOV%20-%20Victorian%20Overdose%20Deaths%202013%E2%80%942022.pdf>.

SafeScript Data Analysis

The extent to which SafeScript is realising its intended benefits can be measured using data provided to the Review, along with some publicly available data.

Benefit 1: Minimise the risk of harm or death due to medicines monitored in the system as a result of the implementation of SafeScript.

Chart B.7: number of prescription medicine related ambulance attendances

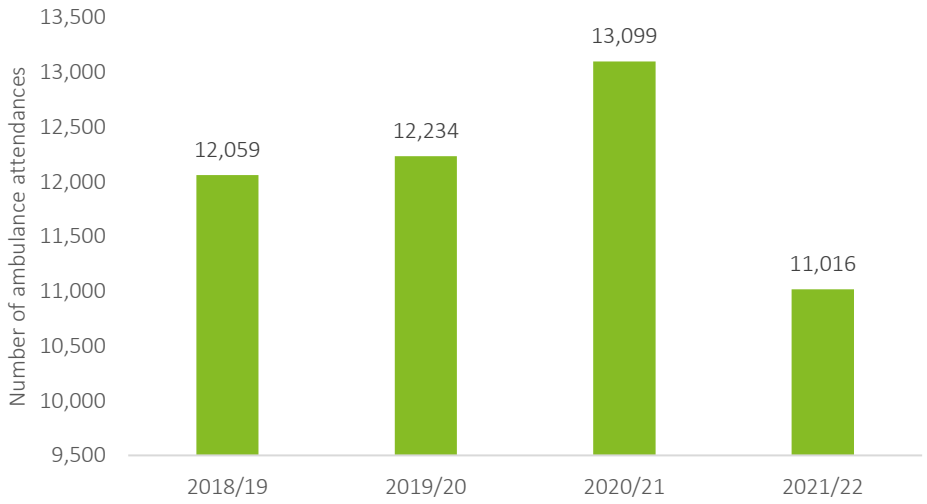
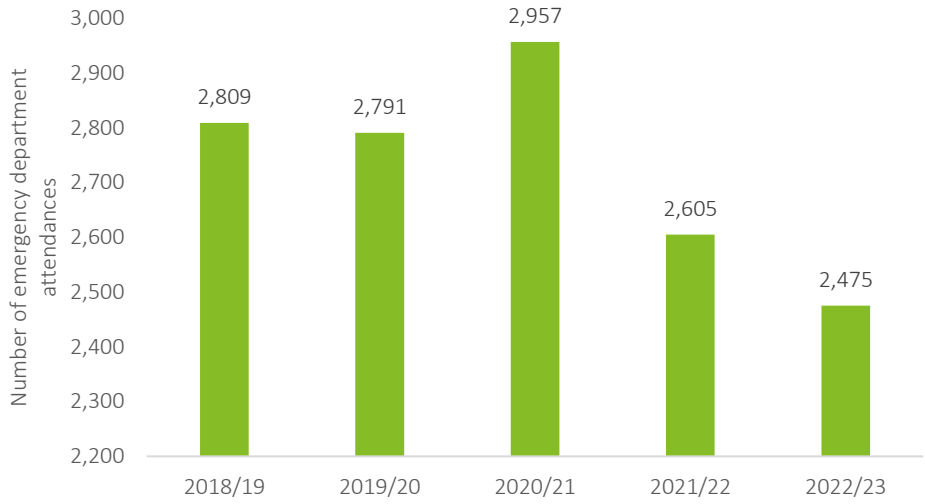


Chart B.8: number of emergency department presentations for opioids, benzodiazepines, anticonvulsants (including pregabalin) and other synthetic narcotics (including tramadol)



Sources: Department of Health.
Department of Health Victorian Emergency Minimum Dataset data.

SafeScript Data Analysis

The extent to which SafeScript is realising its intended benefits can be measured using data provided to the Review, along with some publicly available data.

Benefit 1: Minimise the risk of harm or death due to medicines monitored in the system as a result of the implementation of SafeScript.

Chart B.9: number of hospital admissions for opioids, benzodiazepines, anticonvulsants (including pregabalin) and other synthetic narcotics (including tramadol)

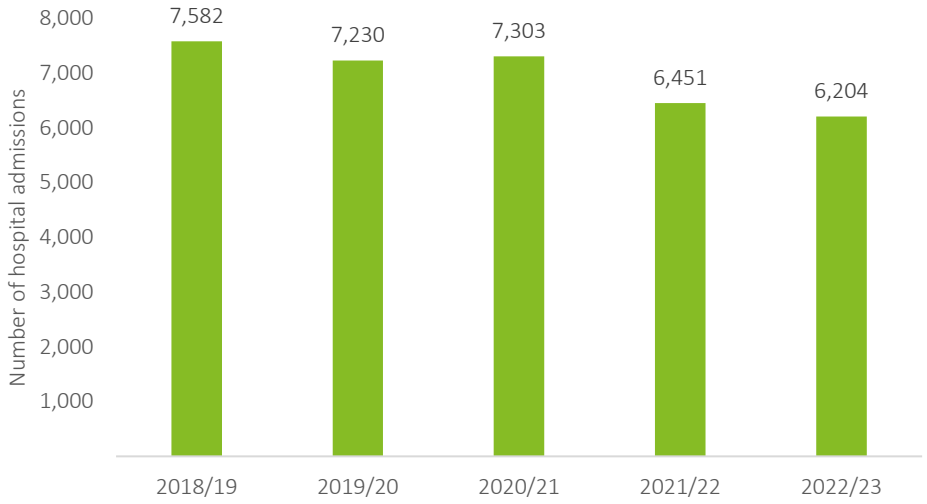
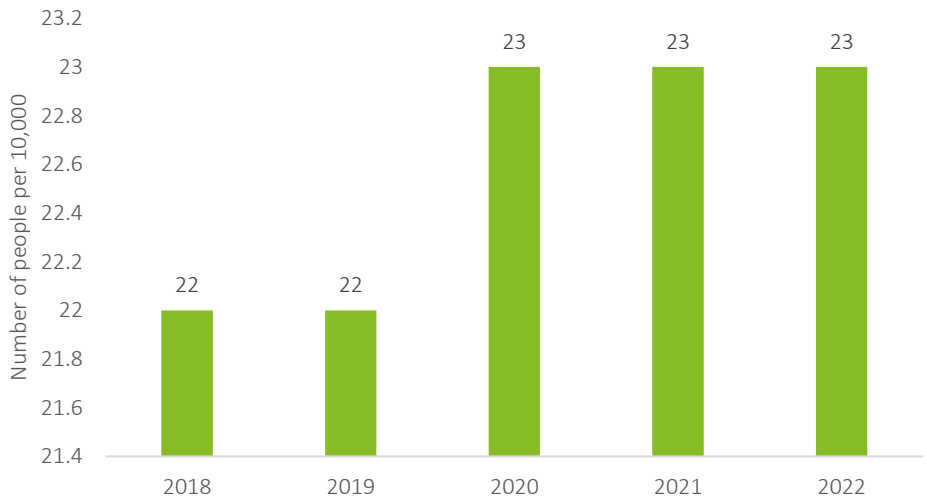


Chart B.10: number of people receiving opioid replacement therapy treatment services for opioid dependence



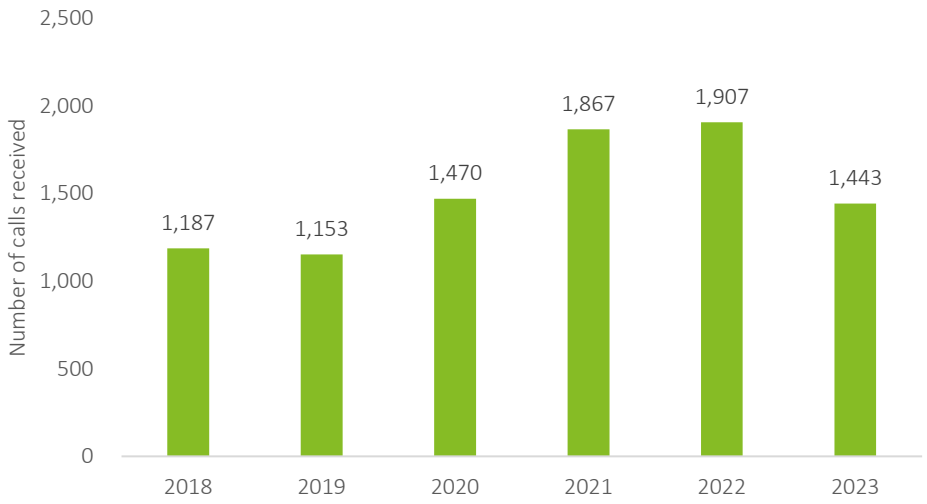
Sources: Department of Health, Victorian Admitted Episodes Dataset.
Australian Institute of Health and Welfare, National Opioid Pharmacotherapy Statistics Annual Data (NOPSAD) (4 April 2024) <https://www.aihw.gov.au/about-our-data/our-data-collections/nopsad-collection>.

SafeScript Data Analysis

The extent to which SafeScript is realising its intended benefits can be measured using data provided to the Review, along with some publicly available data.

Benefit 1: Minimise the risk of harm or death due to medicines monitored in the system as a result of the implementation of SafeScript.

Chart B.11: number of calls received by the Victorian Poisons Information Centre for medicines monitored on SafeScript



Sources: Victorian Poisons Information Centre.
Therapeutic Goods Administration, *Database of Adverse Event Notifications* (4 April 2024) <https://daen.tga.gov.au/medicines-search/>.

SafeScript Data Analysis

The extent to which SafeScript is realising its intended benefits can be measured using data provided to the Review, along with some publicly available data.

Benefit 2: More effective management of conditions for which medicines monitored in the system are used.

Chart B.12: number of unique patients on high opioid doses (>100 MED daily)

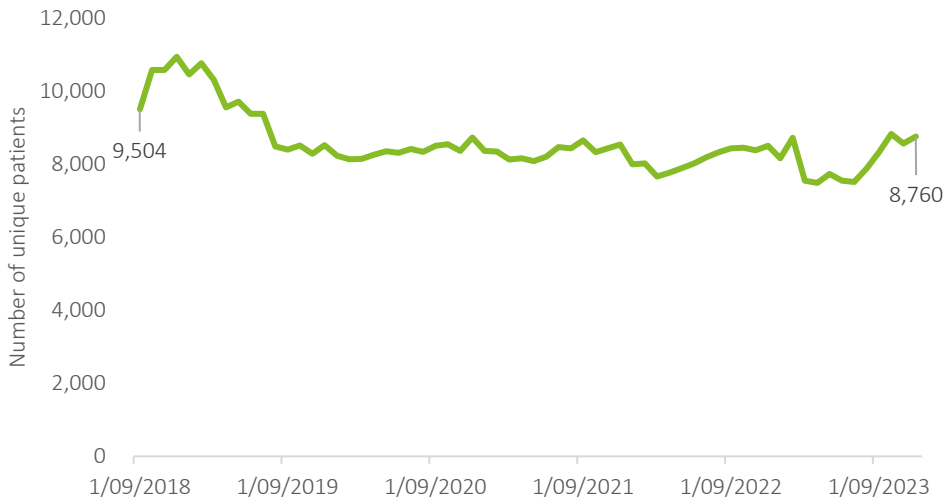
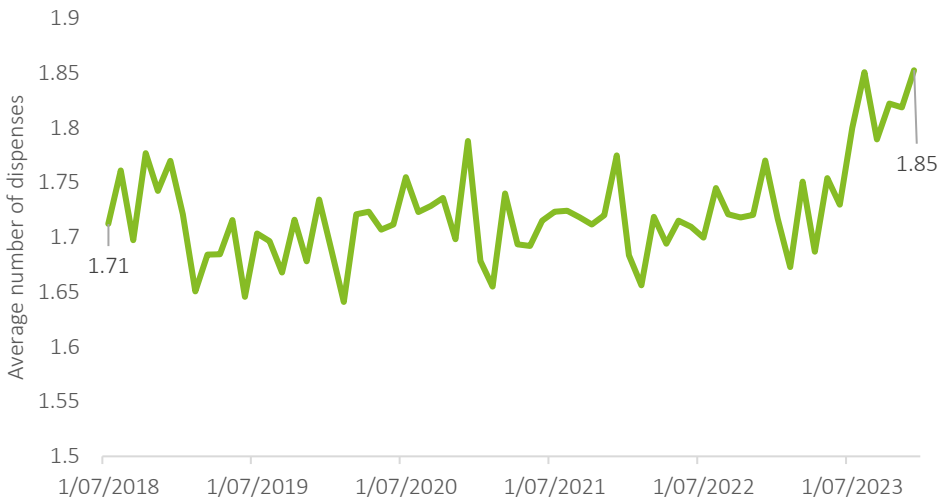


Chart B.13: average number of dispenses for in-scope SafeScript medicines per patient



Source: SafeScript administrative data.

SafeScript Data Analysis

The extent to which SafeScript is realising its intended benefits can be measured using data provided to the Review, along with some publicly available data.

Benefit 2: More effective management of conditions for which medicines monitored in the system are used.

Chart B.14: number of unique patients supplied high risk medicine combinations

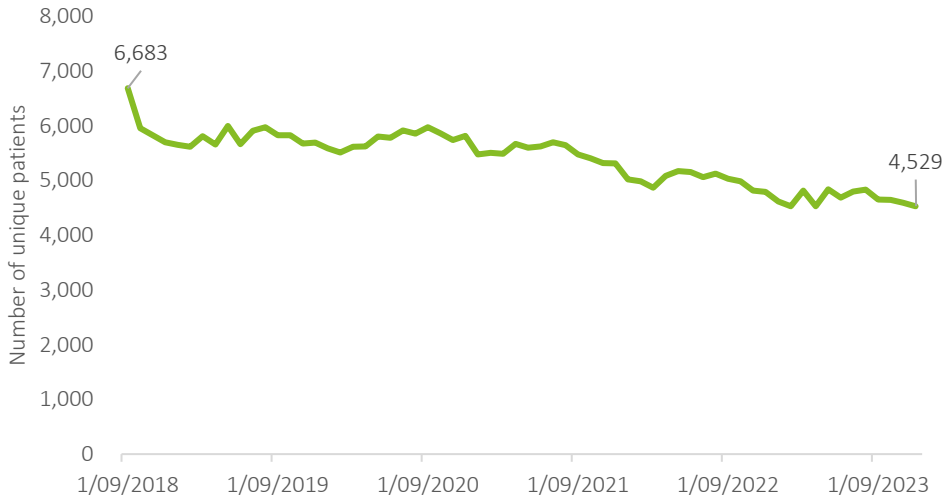
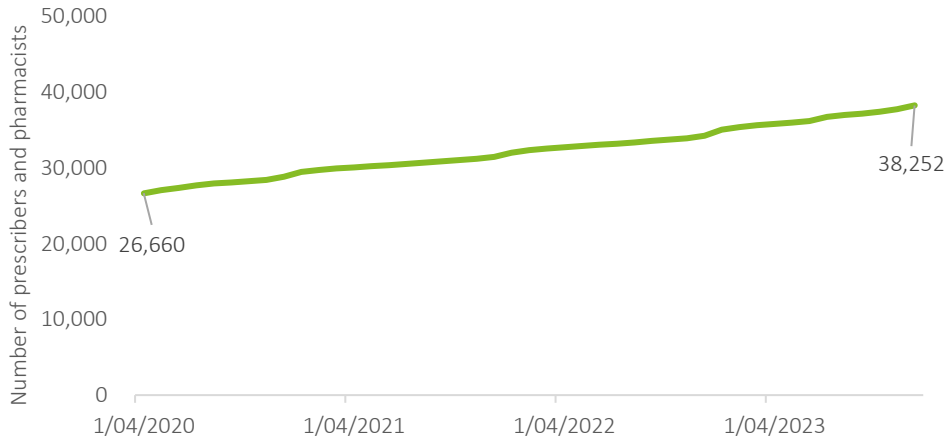


Chart B.15: number of prescribers and pharmacists that are registered to use SafeScript



Source: SafeScript administrative data.

SafeScript Data Analysis

The extent to which SafeScript is realising its intended benefits can be measured using data provided to the Review, along with some publicly available data.

Benefit 2: More effective management of conditions for which medicines monitored in the system are used.

Chart B.16: percentage of patient profiles viewed in SafeScript where they had a red/amber notification

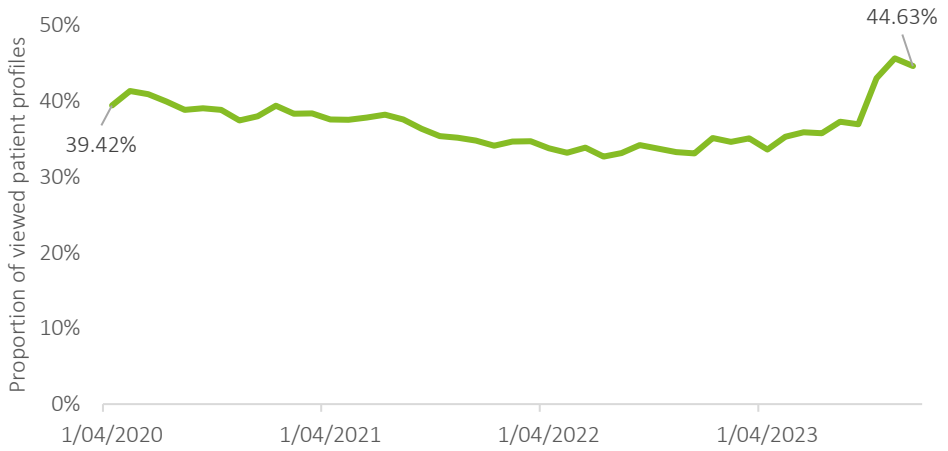
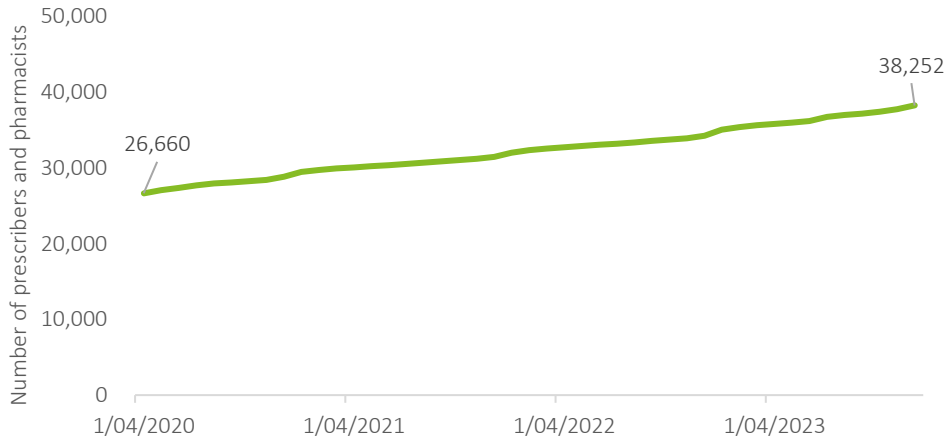


Chart B.17: number of prescribers and pharmacists that are registered to use SafeScript



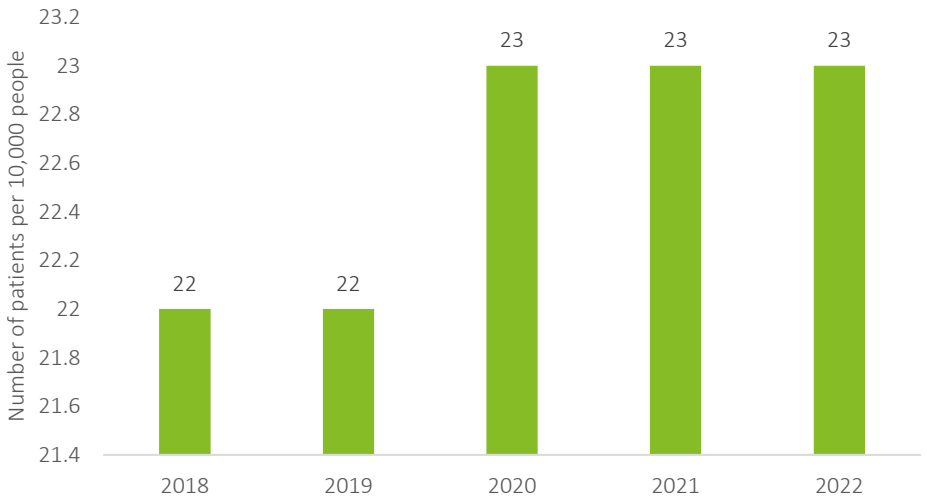
Source: SafeScript administrative data.

SafeScript Data Analysis

The extent to which SafeScript is realising its intended benefits can be measured using data provided to the Review, along with some publicly available data.

Benefit 3: More effective management of dependence in primary care

Chart B.18: number of patients receiving pharmacotherapy on a snapshot day (per 10,000 people)



Impacts of approval of Long Acting Injectable Buprenorphine (LAIB)

The TGA approved some LAIB products for release with effect from April 2020, which may have led to an increase in the number of patients receiving pharmacotherapy treatment in Victoria. While data limitations on the Pharmaceutical Benefits Schedule preclude a multi-year comparison of LAIB services with the number of patients receiving pharmacotherapy, $3.57million was outlaid on LAIB medicines in Victoria in the 2023 calendar year (22.49% of the nationwide expenditure).* Further analysis over multiple periods into the future would provide a more robust indication of LAIB's impact on broader pharmacotherapy uptake in Victoria.

Sources: Australian Institute of Health and Welfare, *National Opioid Pharmacotherapy Statistics Annual Data (NOPSAD)* (4 April 2024) <https://www.aihw.gov.au/about-our-data/our-data-collections/nopsad-collection>.
Services Australia, *Requested PBS & RPBS Items processed from January 2023 to December 2023* (11 April 2024) <http://medicarestatistics.humanservices.gov.au/statistics/>.
* Analysis is from data for the following items on the Pharmaceutical Benefits Schedule: 13302D,13297W,13296T,13314R,13328L,13298X,13328L,13309L,13320C,13327K,13303E.

SafeScript Data Analysis

The extent to which SafeScript is realising its intended benefits can be measured using data provided to the Review, along with some publicly available data.

In total, there were 8,327 attempts to complete the SafeScript training modules hosted on the Department of Health's website.

76% (6,322 of 8,327) of attempts were completed, of which 4,643 were completed on the same day as they were started.

Chart B.19: completion rate of SafeScript training modules (n=8,326)

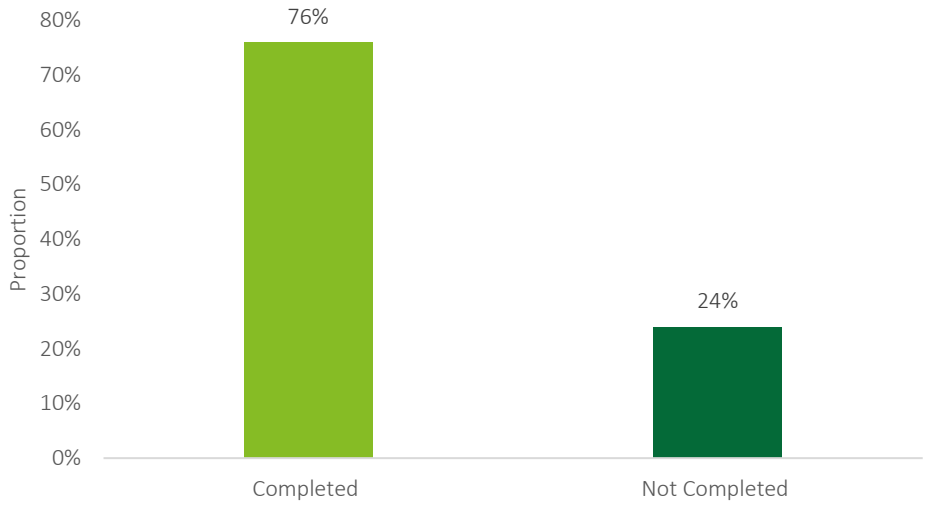
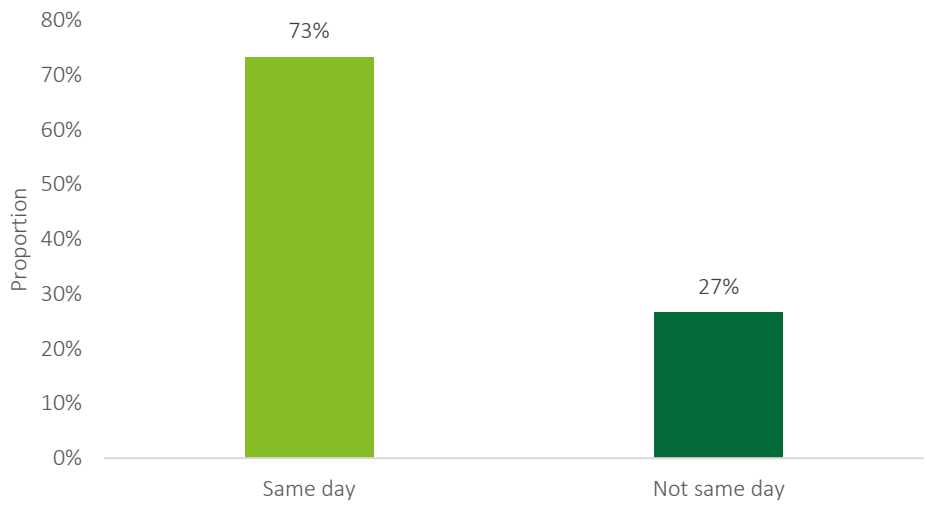


Chart B.20: proportion of completions that took place on the same day as the module was started (n=6,322)



SafeScript Data Analysis

The extent to which SafeScript is realising its intended benefits can be measured using data provided to the Review, along with some publicly available data.

Of the 6,332 training module completions, 51% (3,228) were carried out by a pharmacist.

Table B.1: completions of SafeScript training modules by profession (n=6,332)

Speciality	Count of Completed
Pharmacist	1,226
Pharmacist - Hospital	1,028
Pharmacist - Community	974
GP - General Practitioner	824
Pharmacist - Intern	549
Medical Specialist	356
Medical Officer	230
Nurse - Registered	168
Student - Medical	163
Nurse - Practitioner	152
Student - Pharmacy	135
Medical Intern	103
Hospital Intern	92
GP - Registrar	90
Other	65

Speciality	Count of Completed
Other Health Professional	51
Pharmacy Assistant	23
Student - Nurse Practitioner	21
Nurse - Other	14
Professional	11
Student - Nursing	11
Dentist	9
Midwife	9
Nurse - Enrolled	9
Individual	7
Student - Other Health Professional	5
Diabetes Educator	3
Academic	2
Student - Midwife	2
Grand Total	**6,332**

07 | Appendix C: Review Framework and Program Logic

Methodology – Program Logic

Objectives

- Inform the safe prescribing and supply of high-risk medications known for contributing to accidental and unintentional overdose due to escalated usage, as well as intentional misuse of prescription medication.
- Reduce the administrative burden on prescribers, and improve workflow efficiency, so they can further invest time on delivering care to patients.

Inputs

Legislative/regulatory enablement

- Amendment to *Drugs, Poisons and Controlled Substances Act (1981)* to enable establishment of SafeScript
- Drugs, Poisons and Controlled Substances: Amendment (Real-time Prescription Monitoring) Regulations 2018 codify process for entry of prescription and dispensary information, as well as protocol for checking the database when prescribing the affected drugs[11]

Budget allocation

- Funding for the development of SafeScript in Victorian Budgets, totalling $29.5 million over 4 years from 2016-17 to 2019-20[12]
- Funding for SafeScript implementation and operation activities, totalling $17.8 million over four years from 2021-22 to 2024-25

Contracting for platform development

- Software development vendor FredIT contracted for the development of the SafeScript platform[13]

Workforce

- Department resources required to manage SafeScript and other champions to promote SafeScript

Activities

SafeScript Platform

- Development of platform to allow medical professionals real-time access to prescription and dispensary records by FredIT

Trialling

- Six-month trial of the system in the Western Victoria Primary Health Network, commencing in October 2018[14]
- Refinement of SafeScript based on trial results
- Public awareness campaign informing the general public of SafeScript and the risks of prescription medicine[15]

Monitoring and Tools

- Establishment of Legislative/Regulation monitoring
- Design of clinical guidelines and protocols

Clinician training

- Training sessions for involved medical professionals, including the need for the program and the use of the system[16]
- Clinician and pharmacist education on best practice strategies involving medicines deemed 'high risk'

Service integration

- Integration of software into pre-existing medical programs (i.e. Medical Director etc)

Outputs

SafeScript software application

- Prescribers and dispensers access real-time prescription and dispensary information
- Prescribers and dispensers notified of incidents related to high-risk supply

Ongoing education and skills Training Hub

- A dedicated 'SafeScript Training Hub', providing access to initial and refresher training for prescribers and dispensers[17]

Short-term outcomes

Prescribers and dispensers

- Widespread awareness of SafeScript by prescribers and dispensers
- Increased safety in supply of high-risk medicines
- Improved clinical decision making based on patient history of high-risk medicines
- Reduction in instances of people visiting multiple prescribers obtaining the same or similar medicines in a short period ('doctor shopping')
- Real-time alerts for prescribers and dispeners that identify individual consumers
- Increased oversight of patients' prescription of high-risk medicines
- Increased referral of those deemed 'high risk' to other medications/programs for pain management
- Decreased safety of prescribers and dispensers due to requirements to challenge behaviour

Patients

- Improved patient understanding risks of harm caused by taking high-risk medicines in the long term
- Awareness of SafeScript

Regulators

- Increased regulatory oversight of prescription and dispensing practices by health professionals

Medium-term outcomes

Prescribers and dispensers

- SafeScript embedded into professional practice
- Increased coordination among and between prescribers and dispensers to manage high-risk medicine supply
- Developed skills and confidence to manage complex patients, referring to specialists when appropriate

Patients

- Decreased overuse and dependency on high-risk medicines
- Increase number only seeing one prescriber or medical clinic for their high-risk medicines

Regulators

- Embedded compliance and enforcement strategy with appropriate tools for overseeing mandatory SafeScript use
- Increased use of population level data to educate prescribers and pharmacists about safe and appropriate supply of high-risk medicines
- Streamlined reporting of high-risk medicine use

Long-term outcomes

Prescribers and dispensers

- Professionals are highly skilled and confident in managing complex patients who require high-risk medicines

Patients

- Nil unintentional monitored medicine overdose deaths and minimal monitored medicine harms (e.g. ED presentations and hospital admissions)
- High health literacy for using high-risk medicines

Regulators

- Increased capacity for regulatory oversight of illicit supply and diversion of high-risk medicines
- Low compliance and enforcement activities due to high compliance with SafeScript use

Program Logic References

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16. National Prescribing Service, "Real-time prescription monitoring (SafeScript)," Online training modules, <https://www.nps.org.au/cpd/activities/real-time-prescription-monitoring-safe-script>.

17. National Prescribing Service, "Real-time prescription monitoring (SafeScript)," Online training modules, <https://www.nps.org.au/cpd/activities/real-time-prescription-monitoring-safe-script>.

Detailed SafeScript Review Framework

The SafeScript Review Framework was used to guide the collection and reporting of data throughout the project

Table C.1: Review Framework [1/4]

Key Review Question	Sub-questions	Indicators	Data sources

1. Is SafeScript easy to use?	N/A	• Identification of the extent to which SafeScript is perceived as easy to use
		• Identification of the extent to which it supports stakeholders to meet their legal obligations
		• Identification of barriers and enablers to the use of SafeScript
		• Identification of financial (or non financial) costs of using SafeScript
		• Identification of level of understanding of SafeScript among prescribers/dispensers including:
		  ○ purpose
		  ○ use
		  ○ regulatory requirement
		  ○ access of available resources
			• Survey responses
			• Stakeholder consultation
			• Secondary data

2. Has SafeScript achieved its objectives?	2.1 Does it promote safe supply, prescription and dispensing practices?	• Identification of the extent to which there has been a clinically appropriate reduction in the prescription of high-risk medicines • Identification of the extent to which there has been a clinically appropriate reduction in the dispensing of high-risk medicines	• SafeScript data • Survey responses • Stakeholder consultation • Secondary data • Desktop review

	2.2 Has it reduced harm from monitored poisons and other high-risk medication?	• Identification of the extent to which there has been a reduction of prescription-related adverse events, including the extent to which these have been managed by less acute services
		• Perception of the extent to which there has been a decrease in prescription-related adverse events
			• SafeScript data
			• Survey responses
			• Stakeholder consultation
			• Secondary Data such as:
			  ○ Coroners Prevention Unit data
			  ○ Turning Point Alcohol and Drug Centre
			  ○ Victorian Admitted Episodes Dataset
			  ○ National Opioid Pharmacotherapy Statistics Annual Data (NOPSAD)
			  ○ Victorian Poisons Information Centre

Detailed SafeScript Review Framework

The SafeScript Review Framework was used to guide the collection and reporting of data throughout the project

Table C.1: Review Framework [2/4]

Key Review Question	Sub-questions	Indicators	Data sources
3. Have there been any observable unintended consequences of SafeScript implementation?	3.1 Has the implementation of SafeScript led to potentially harmful changes through the supply of other prescription medications?	• Perception of the extent to which there have been potentially harmful changes in the prescription of other medications • Perception of prescribers and dispensers using SafeScript who suggest that they have noticed an improvement in their patients' use of, or behaviour relating to their prescription medicines • Identification of the extent to which there has been an increase in non-in-scope SafeScript medicine adverse events	• SafeScript data • Stakeholder consultation • Secondary data sources such as: o Coroners Prevention Unit data o Trend in Alcohol and Drug-Related Ambulance Attendances o Victorian Admitted Episodes Dataset o National Opioid Pharmacotherapy Statistics Annual Data (NOPSAD) o Victorian Poisons Information Centre
	3.2 Has there been an observable substitution towards illicit drugs due to SafeScript?	• Perception of the extent to which illicit drug use has increased • Identification of the extent to which prescription-monitored medicine-related: o deaths o requirement for acute service treatment has increased	• Stakeholder consultation • Trend analysis using secondary data sources such as: o Coroners Prevention Unit data o Trend in Alcohol and Drug-Related Ambulance Attendances o Victorian Admitted Episodes Dataset o Victorian Poisons Information Centre
	3.3 To what extent has the use of SafeScript resulted in patients being denied appropriate care?	• Perception of the extent to which there has been an increase in prescribers and dispensers using the information on SafeScript to refuse care to eligible patients • Identification of the extent to which incidents of care refusal informed by SafeScript has resulted in adverse events for patients	• Survey responses • Stakeholder consultation

Detailed SafeScript Review Framework

The SafeScript Review Framework was used to guide the collection and reporting of data throughout the project.

Table C.1: Review Framework [3/4]

Key Review Question	Sub-questions	Indicators	Data sources
3. Have there been any observable unintended consequences of SafeScript implementation?	3.4 Has there been any other unintended consequences?	• Identification of other positive or negative consequences from the implementation of SafeScript	• Survey responses • Stakeholder consultation
4. Has introducing the system aided the clinical decision-making process?	N/A	• Identification of the extent to which SafeScript has supported clinical decision-making processes • Identification of extent to which SafeScript has impacted the time taken to complete required tasks	• Survey responses • Stakeholder consultation
5. Has there been a net benefit associated with introducing SafeScript, and if so, how large is this benefit?	N/A	• Summary of the extent to which benefits have been provided to Victoria through Key Review Questions 1-4 that includes the extent to which SafeScript has: o minimised the risk of harm or death due to medicines monitored in the system o improved effective management of conditions for which medicines monitored in the system are used o improved effective management of dependence in primary care • Comparison of benefits identified compared to scale of costs/barriers in Key Review Questions 1 and 4	• Stakeholder consultation • Survey responses • SafeScript data

Detailed SafeScript Review Framework

The SafeScript Review Framework was used to guide the collection and reporting of data throughout the project.

Table C.1: Review Framework [4/4]

Key Review Question	Sub-questions	Indicators	Data sources
6. To what extent are the existing exceptions for use appropriate?	N/A	• Identification of the extent to which existing exemptions are considered appropriate • Identification of additional settings/circumstances that could be added to alternate • Identification of feasibility of implementing additional settings/circumstances; including workflow impacts	• Survey responses • Stakeholder consultation

N/A	N/A	• Identification of opportunities to improve SafeScript with consideration of:
		  ○ system opportunities
		  ○ policy opportunities
		• Identification of the potential benefit from the identified opportunities
			• Stakeholder consultation

07 | Appendix D: Stakeholder Survey Analysis

Stakeholder Survey Analysis

Introductory text

Review of SafeScript

Deloitte has been engaged by the Victorian Department of Health (the Department) to undertake a review of the SafeScript real-time prescription monitoring system. The objective of the review is to identify the extent to which SafeScript has achieved the intended objectives and explore opportunities for improvement that might better achieve these objectives or increase the benefits.

Survey purpose

The purpose of this survey is to understand your experiences with SafeScript and how it has impacted your professional practice. Specifically, we would like to understand your perspective on whether SafeScript:

- is useful for informing decision-making processes
- is easy to use
- promotes safe supply practices
- reduces harm from monitored high-risk medicines.

Your views will help to inform future policy decisions about SafeScript and the monitoring of high-risk medicines more broadly.

The survey should take less than 10 minutes to complete and it is made up of multiple choice questions with optional opportunities for detailed feedback in free text responses. There are approximately 17 questions.

About SafeScript

SafeScript is a clinical tool to help prescribers and pharmacists make safer decisions about the prescribing or dispensing of high-risk medicines. It is designed to facilitate the early identification, treatment and support for

patients who are developing signs of dependence.

Collection Notice

By completing this survey, you confirm that you have understood this information and agree to take part in this Review activity. You also agree that Deloitte and/or the Department can use and publish your responses in a form that does not identify you, your service, or your organisation. Your personal information will be handled in accordance with the requirements of the Privacy & Data Protection Act 2014 (Vic).

Your responses will be collated with those of all other respondents. The collated responses will form part of the overall data for a report that will be provided to the Department. You and your organisation will not be identified in any reports or papers using information from this survey. All information collected will be kept strictly confidential, stored securely, and will only be used by the Victorian government. The results of this survey will not be disclosed unless authorised by law. If Deloitte and/or the Department choose to publish the results of the survey, privacy measures will be taken to de-identify the data to ensure your confidentiality is protected.

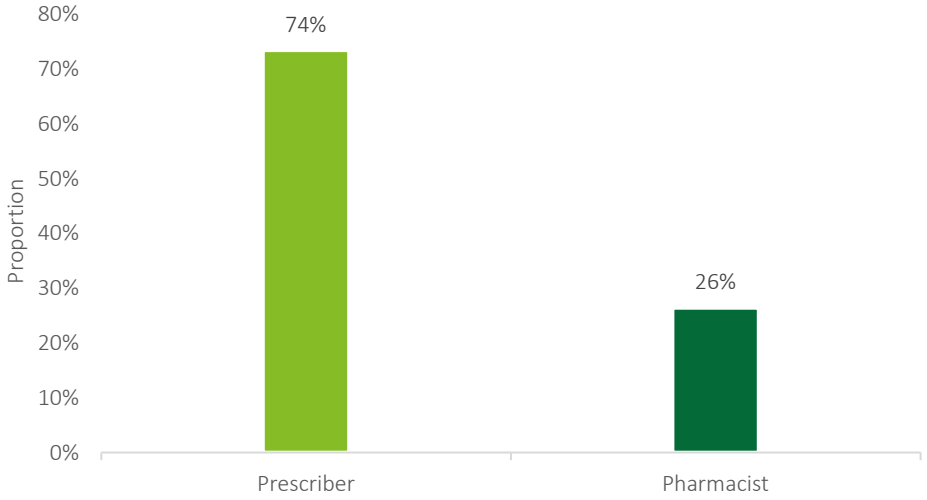
The survey closes on Wednesday 13th of March.

Stakeholder Survey Analysis

About you

Question 1. Which of the following best describes your role, with respect to the high-risk medicines monitored in SafeScript?

Chart D.1: responses to 'Which of the following best describes your role, with respect to the high-risk medicines monitored in SafeScript?' (n=1,934)

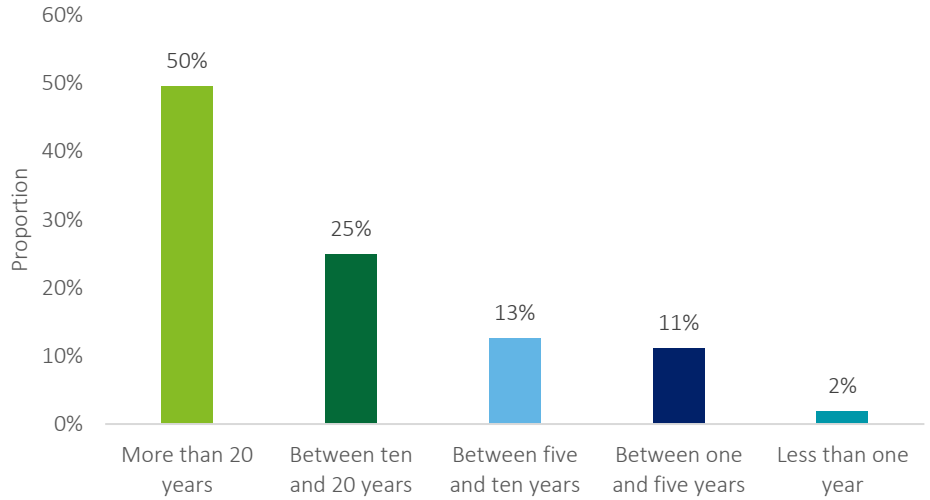


Summary

74% (1,422 of 1,934) of respondents indicated that they are prescribers. 26% (512 of 1,934) indicated that they are pharmacists.

Question 2 (for prescribers). For how many years have you been a registered prescribing practitioner?

Chart D.2: responses to 'For how many years have you been a registered prescribing practitioner?' (n=1,422)



Summary

Of the 1,422 respondents who specified they were prescribing practitioners, 75% (1,059 of 1,422) reported having at least ten years of experience.

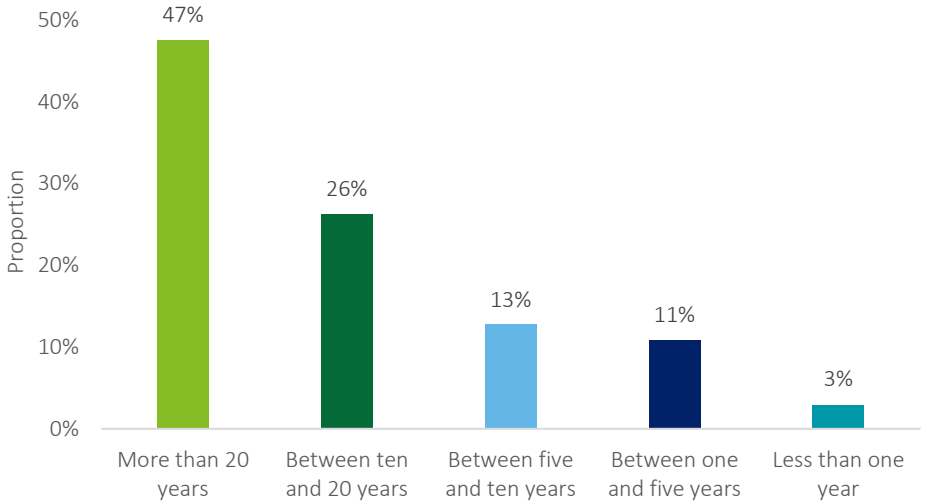
Of this group, 705 reported having more than 20 years of experience and 354 respondents reported having ten to 20 years.

Stakeholder Survey Analysis

About you

Question 3 (for pharmacists). For how many years have you been a registered pharmacist?

Chart D.3: responses to 'For how many years have you been a registered pharmacist?' (n=512)



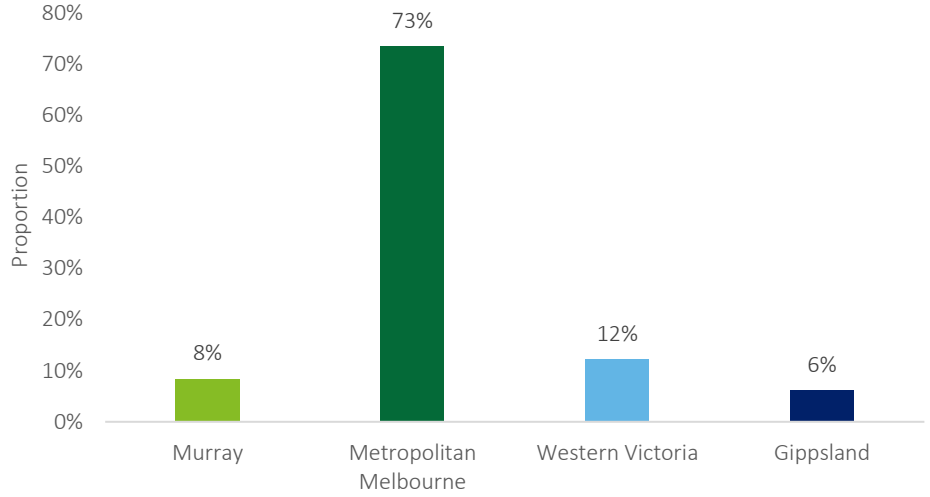
Summary

Of the 512 respondents who specified they were registered pharmacists, 73% (377 of 512) reported having at least ten years of experience.

Of this group, 134 respondents selected having between ten and 20 years of experience, and 243 with more than 20 years.

Question 4. In which region do you primarily undertake your professional activities?

Chart D.4: responses to 'In which region do you primarily undertake your professional activities?' (n=1,934)



Summary

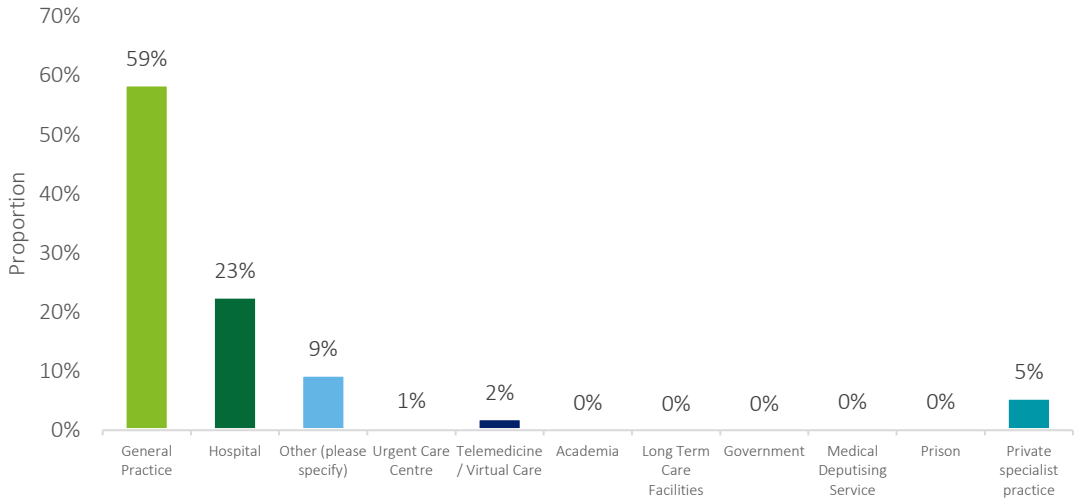
73% (1,420 of 1,934) of respondents reported undertaking majority of their professional activities in Metropolitan Melbourne.

Stakeholder Survey Analysis

About you

Question 5 (for prescribers). In what setting do you primarily practice?

Chart D.5: responses to 'In what setting do you primarily practice?' (n=1,422)

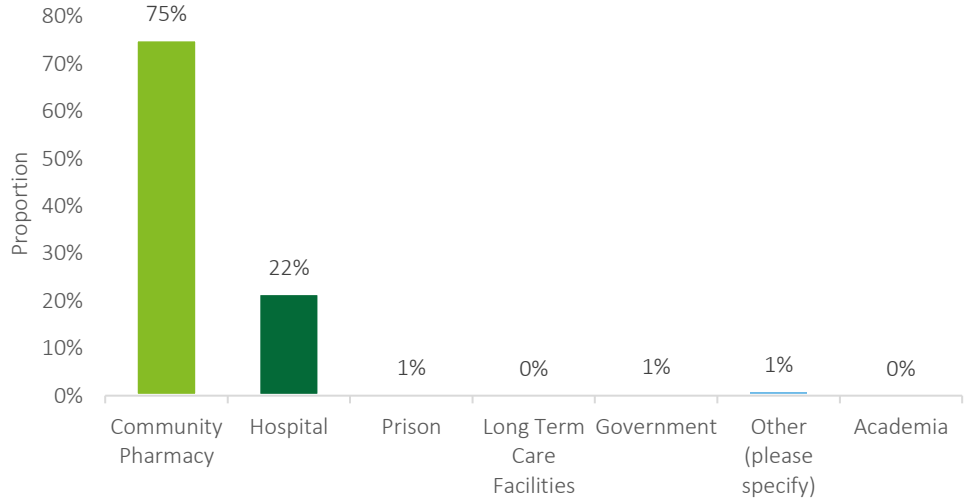


Summary

Of the 1,422 respondents who specified they were prescribing practitioners, 59% (832 of 1,422) reported working at a General Practice.

Question 6 (for pharmacists). In what setting do you primarily practice?

Chart D.6: responses to 'In what setting do you primarily practice?' (n=512)



Summary

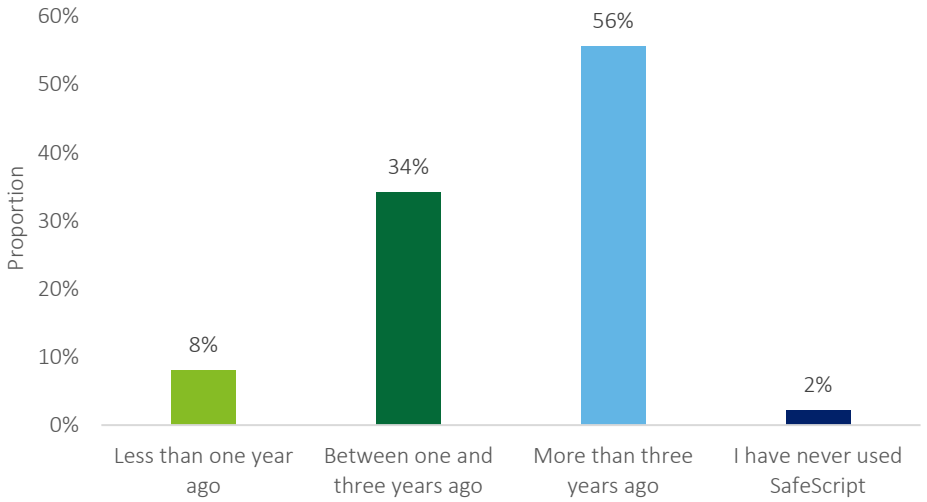
Of the 512 respondents who specified they were registered pharmacists, 75% (385 of 512) reported working at a Community Pharmacy.

Stakeholder Survey Analysis

Ease of use: uptake

Question 7. When was the first time you used SafeScript?

Chart D.7: responses to 'When was the first time you used SafeScript?' (n=1,934)

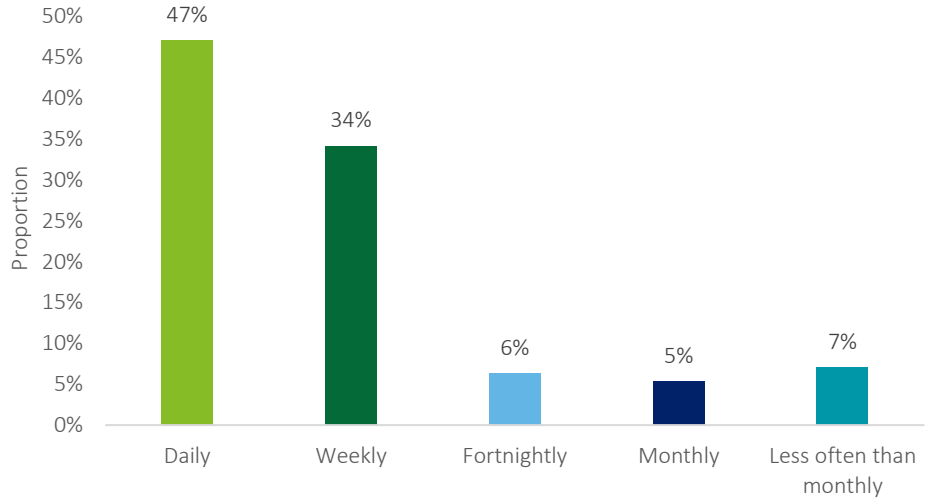


Summary

56% (1,076 of 1934) of respondents reported first using SafeScript more than three years ago.

Question 8 (for prescribers). How often do you prescribe medicines monitored by SafeScript?

Chart D.8: responses to 'How often do you prescribe medicines monitored by SafeScript?' (n=1,379)



Summary

81% (1,120 of 1,379) of respondents reported prescribing medicines monitored by SafeScript either weekly or daily.

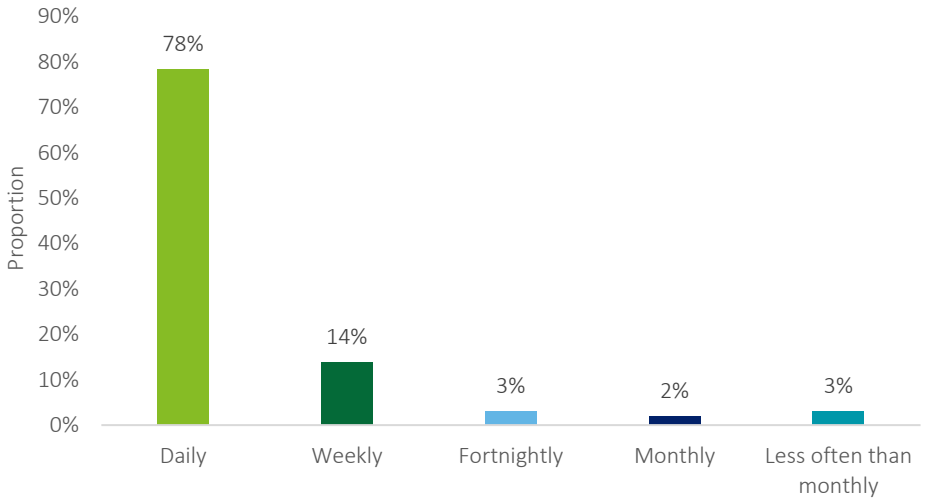
Of this group, 649 reported daily use and 471 reported weekly use.

Stakeholder Survey Analysis

Ease of use: uptake

Question 9 (for pharmacists). How often do you supply medicines monitored by SafeScript?

Chart D.9: responses to 'How often do you supply medicines monitored by SafeScript?' (n=512)

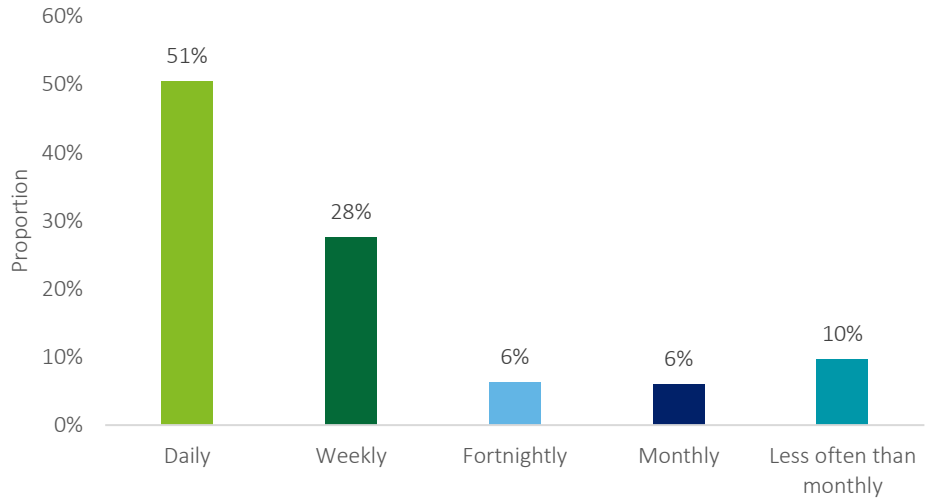


Summary

Of the 512 respondents who specified they were registered pharmacists, 78% (401 of 512) reported supplying medicines monitored by SafeScript daily.

Question 10. In the last 12 months, how often have you used SafeScript?

Chart D.10: responses to 'In the last 12 months, how often have you used SafeScript?' (n=1,891)



Summary

85% (1,595 of 1,891) of respondents reported using SafeScript at least weekly in the last 12 months.

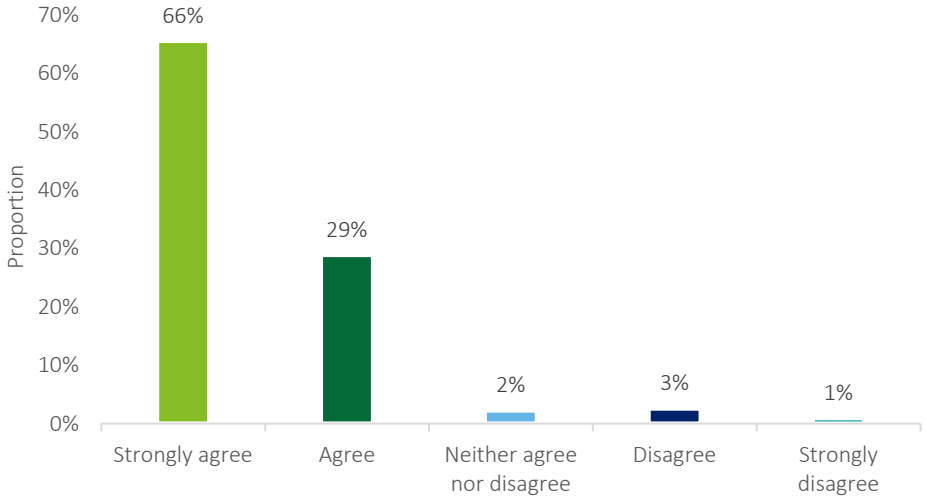
Of this group, 955 respondents reported daily use and 521 reported weekly use.

Stakeholder Survey Analysis

Ease of use: uptake

Question 11. To what extent do you agree with the following statement: 'I understand the purpose of SafeScript'?

Chart D.11: responses to 'To what extent do you agree with the following statement: 'I understand the purpose of SafeScript'?' (n=1,891)



Summary

95% (1,825 of 1,934) of respondents selected they understand the purpose of SafeScript.

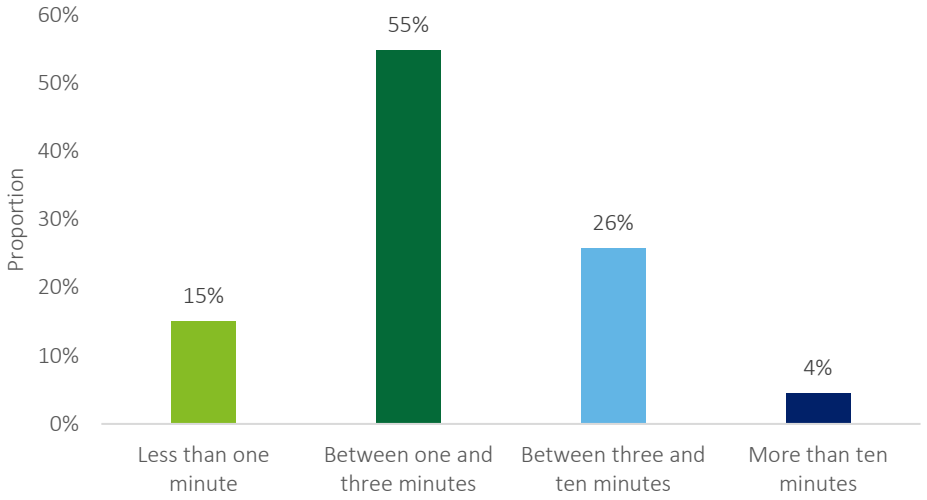
Of this group, 1,267 selected 'strongly agree' and 558 selected 'agree'.

Stakeholder Survey Analysis

Ease of use: possible factors impacting ease of use

Question 12. Approximately how much time on average does it take you to find the information you need about a patient in SafeScript?

Chart D.12: responses to 'Approximately how much time on average does it take you to find the information you need about a patient in SafeScript?' (n=1,891)

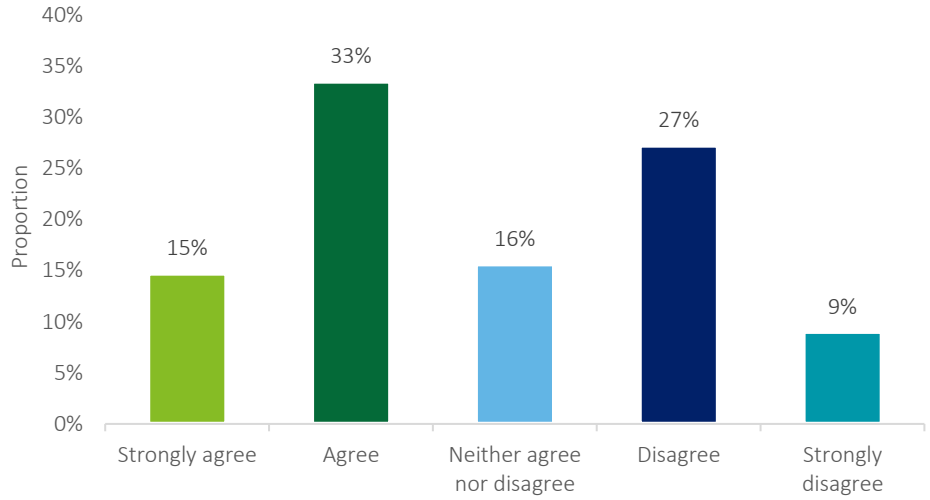


Summary

55% (1,037 of 1,891) of respondents require between one and three minutes to find the information they need about a patient in SafeScript.

Question 13. To what extent do you agree with the following statement: 'It is easy to integrate SafeScript into my other regular tasks'?

Chart D.13: responses to 'To what extent do you agree with the following statement: 'It is easy to integrate SafeScript into my other regular tasks'? (n=1,891)



Summary

48% (911 of 1,891) of respondents indicated that they found SafeScript easy to integrate into their other regular tasks. Of this group, 633 respondents selected 'agree', and 278 respondents selected 'strongly agree'.

However, 36% of respondents indicated that they did not find SafeScript easy to integrate into their other regular tasks. Of this group, 515 respondents selected 'disagree', and 170 respondents selected 'strongly disagree'.

Stakeholder Survey Analysis

Ease of use: possible factors impacting ease of use

Question 14. In your experience, what has worked well or helped you to use SafeScript?

Summary

A total of 1,305 respondents, 67%, provided a description for this question.

Common feedback points included:

- universal access across health services and settings
- preventing overuse/inappropriate use of some medication
- easy way to monitor scripts
- information provided is clear and useful
- being able to see if a patient has multiple prescribers
- alert colours are useful
- being able to separately prescribe and dispense drugs and see previously prescribing practitioners for the same patient.

Overall, survey respondents using SafeScript most commonly report that SafeScript works well to alert them of inappropriate drug use and identify patients and relevant history, such as previously prescribing practitioners and dispensing history.

Question 15. In your experience, what has made it more difficult or challenging to use SafeScript?

Summary

A total of 1,476 respondents, 76%, provided a description for this question.

Common feedback points included:

- daily login issues and clunky user interface can be time consuming, particularly with the two-factor authentication
- lack of efficient mobile platform access
- the action plan if a patient has a ‘red alert’ but is stable is unclear, and once flagged the system kept the patient flagged for an extended period
- limited to Victorian database with no interstate access
- name search function should account for some incorrect patient details, without which there are multiple accounts for one patient
- platform changes are communicated poorly
- lack of clinical notes
- lacks the function of ‘favouriting’ a patient for easy access.

Overall, the most challenging aspect of SafeScript described by respondents is the time-consuming nature of the log-in process.

Stakeholder Survey Analysis

Ease of use: possible factors impacting ease of use

Question 16 (for respondents who indicated that they have not used SafeScript).
Please describe any factors which have contributed to you not using SafeScript before.

Summary

A total of 39 respondents (2% of all respondents) responded to this question.
Common feedback points included that:

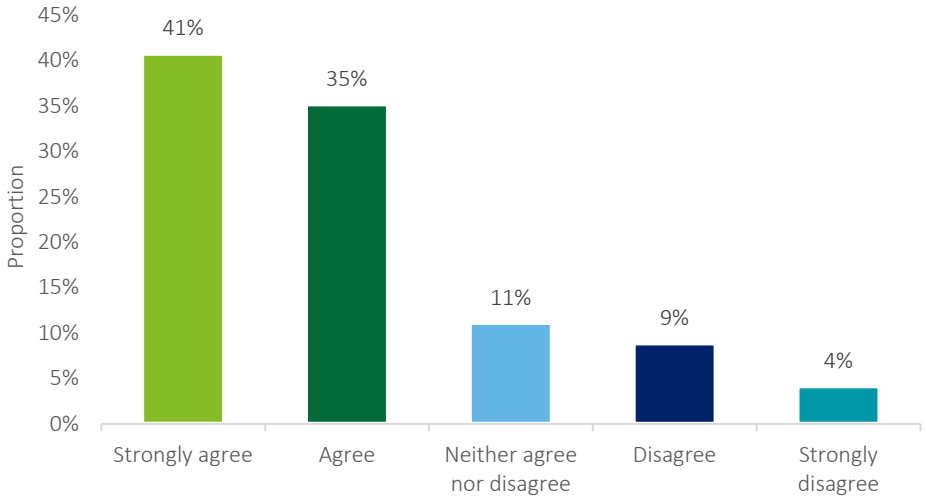
- the enrolment process is complicated and not user-friendly
- SafeScript is time consuming to use which serves as a distraction from patient care
- respondents are not aware of what SafeScript is
- SafeScript is not used in the respondent's professional setting (e.g. hospital, outpatient settings, aged care settings).

Stakeholder Survey Analysis

Achievement of intended objectives

Question 17 (for prescribers). To what extent do you agree with the following statement: 'Using SafeScript has helped me to more safely prescribe high-risk medicines to my patients'?

Chart D.14: responses to 'To what extent do you agree with the following statement: 'Using SafeScript has helped me to more safely prescribe high-risk medicines to my patients'?' (n=1,379)



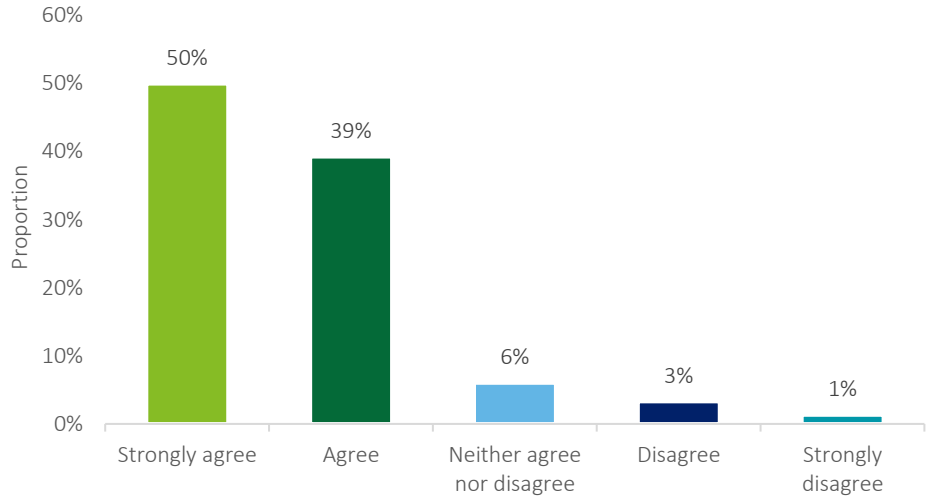
Summary

76% (1,047 of 1,379) of respondents indicated that using SafeScript helped them to more safely prescribe high-risk medicines to their patients.

Of this group, 562 selected 'strongly agree' and 485 selected 'agree'.

Question 18 (for pharmacists). To what extent do you agree with the following statement: 'Using SafeScript has helped me to more safely supply high-risk medicines to my patients'?

Chart D.15: responses to 'To what extent do you agree with the following statement: 'Using SafeScript has helped me to more safely supply high-risk medicines to my patients'?' (n=512)



Summary

89% (457 of 512) of respondents indicated that using SafeScript helped them to more safely supply high-risk medicines to their patients.

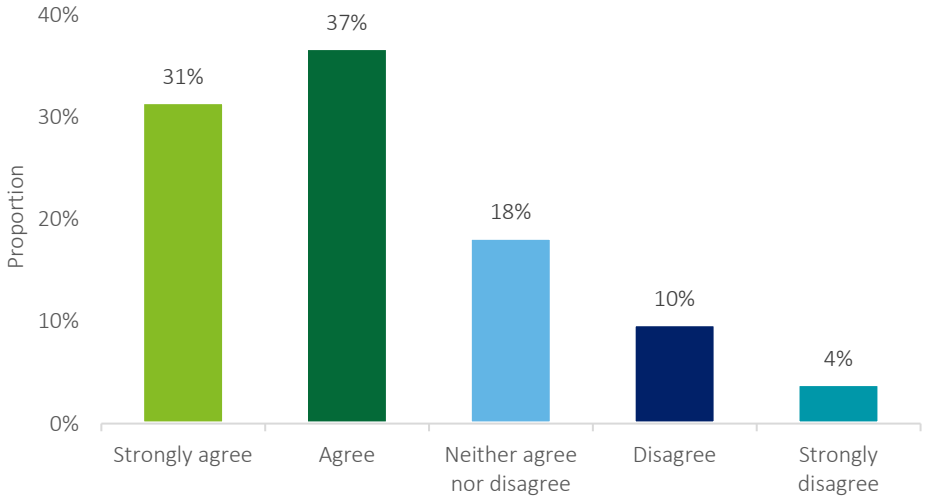
Of this group, 256 selected 'strongly agree' and 201 selected 'agree'.

Stakeholder Survey Analysis

Achievement of intended objectives

Question 19. To what extent do you agree with the following statement: 'Using SafeScript has helped me to make better clinical decisions for my patients'?

Chart D.16: responses to 'To what extent do you agree with the following statement: 'Using SafeScript has helped me to make better clinical decisions for my patients'?' (n=1,891)



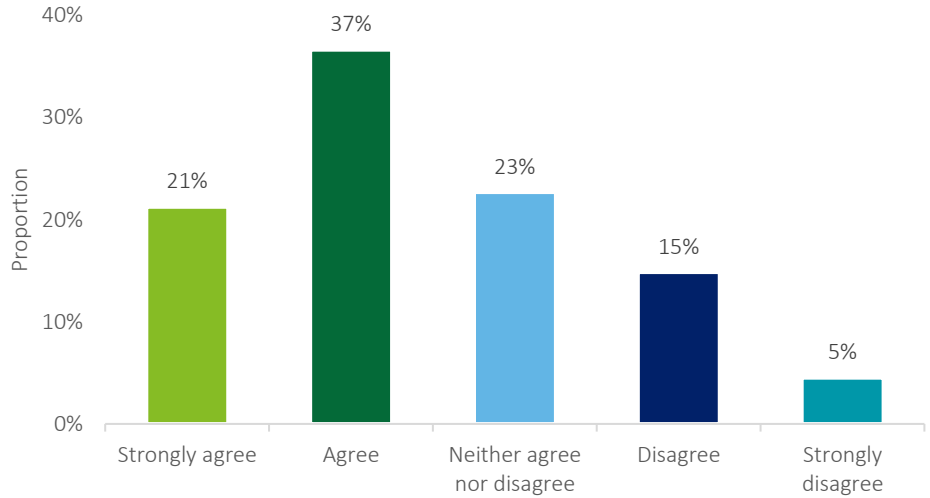
Summary

68% (1,290 of 1,891) of respondents indicated that using SafeScript helps them to make better clinical decisions for their patients.

Of this group, 695 selected 'agree' and 595 selected 'strongly agree'.

Question 20. To what extent do you agree with the following statement: 'The green, amber and red pop-up notifications help me make better clinical decisions'?

Chart D.17: responses to 'To what extent do you agree with the following statement: 'The green, amber and red pop-up notifications help me make better clinical decisions'?' (n=1,891)



Summary

58% (1,095 of 1,891) of respondents indicated that the green, amber and red pop-up notifications in SafeScript help them make better clinical decisions.

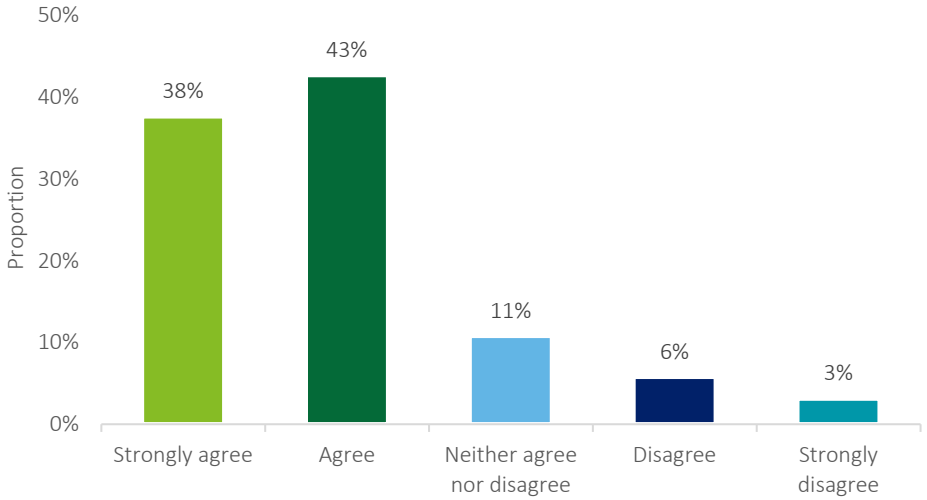
Of this group, 693 respondents selected 'agree' and 402 selected 'strongly agree'.

Stakeholder Survey Analysis

Achievement of intended objectives

Question 21. To what extent do you agree with the following statement: 'Using SafeScript has increased my confidence about the oversight of patients' supply of high-risk medicines'?

Chart D.18: responses to 'To what extent do you agree with the following statement: 'Using SafeScript has increased my confidence about the oversight of patients' supply of high-risk medicines'? (n=1,891)



Summary

81% (1,519 of 1,891) of respondents indicated that using SafeScript had increased their confidence about the oversight of patients' supply of high-risk medicines.

In this group, 807 respondents selected 'agree' and 712 selected 'strongly agree'.

Question 22. Please provide additional feedback not already provided that you feel is important for us to know.

Summary

34% (660 of 1,934) of respondents provided additional feedback, with 1,274 respondents choosing not to respond.

Common feedback points included:

- SafeScript needs to be easier to log in to
- information needs to be more readable to promote ease of understanding.
- the inability for users to add notes on events of interest (e.g. patient attempting to fill a fake prescription) is a limitation
- SafeScript doesn't seem to add value for practitioners
- prescribers tend to rely on the colour of the alert too much instead of checking a patient's prescription/history themselves
- amber warnings are not helpful, particularly given they are active for an extended period. The red and green alerts are helpful.

07 | Appendix E: Key Performance Indicators

Has there been a net benefit associated with introducing SafeScript?

The following pages provide an outline of how SafeScript is tracking against each of the key performance indicators associated with the three proposed benefits. Table E.1 to E.3 provides information on the:

- key date ranges from which information is available.
- baseline and midpoint data captured to date
- percentage of change
- whether the change has a positive, neutral or negative trend.

The following key highlights the change in measure across the implementation period.

Key

Positive trend

Neutral trend/too early to tell

Negative trend

The full benefits of SafeScript will be measured through the full evaluation in 4 years. The intention of presenting the current progress snapshot of performance is to provide a reference point for the future evaluation

Has there been a net benefit associated with introducing SafeScript?

The total number of patients receiving a combination of monitored medicines has decreased while key metrics around the reduction of adverse events has all decreased.

Table E.1: current changes seen across Benefit 1: minimise the risk of harm or death due to medicines monitored in the system as a result of the implementation of SafeScript [1/2]

KPI	Measure	Data date range	Start and end data points	% of change	Trend
Reduction in multiple provider episodes	Percentage of patients obtaining high-risk medicines from multiple prescribers and pharmacists	September 2018 to December 2023	Start: 3.79% End: 6.56%	2.77% increase	
Reduction in supply of high-risk medicines	Number of prescriptions supplied for Opioids, Benzos, Z-drugs	July 2018 to December 2023 (dispenses data used)	Start: 465,365 End: 560,360	20.41% increase	
	Number of patients supplied Opioids medicines	July 2018 to December 2023	Start: 174,037 End: 220,787	26.86% increase	
	Number of patients dispensed Schedule 8 & 4 benzodiazepine medicines	July 2018 to December 2023	Start: 118,476 End: 118,319	0.13% decrease	
	Average dose for Benzos, Z-drugs	July 2018 to December 2023	Data encompasses 38 individual medicines	Reduction in average dose in 21 out of 38 individual medicines	
	Number of patients receiving a combination of monitored medicines that are classified as particularly high-risk	September 2018 to December 2023	Start: 6,683 End: 4,529	32.23% decrease	
Reduction of prescription-related adverse events	Number of prescription-monitored medicine-related deaths	2018 to 2022	Start: 428 End: 405	5.37% decrease	
	Number of prescription medicine related ambulance attendances	2018-19 to 2021-22	Start: 12,059 End: 11,016	8.65% decrease	
	Number of prescription medicine related emergency department attendances	2018-19 to 2022-23	Start: 2,809 End: 2,475	11.89% decrease	

Sources: SafeScript administrative data, Coroners Court of Victoria overdose deaths data, Department of Health Victorian Emergency Minimum Dataset data.

Has there been a net benefit associated with introducing SafeScript?

The total number of patients receiving a combination of monitored medicines has decreased while key metrics around the reduction of adverse events has all decreased.

Table E.1: current changes seen across Benefit 1: minimise the risk of harm or death due to medicines monitored in the system as a result of the implementation of SafeScript [2/2]

KPI	Measure	Data date range	Start and end data points	% of change	Trend
Reduction of prescription-related adverse events	Number of prescription medicine related hospital admissions	2018-19 to 2022-23	Start: 7,582 End: 6,204	18.17% decrease	
	Number of people receiving opioid replacement therapy treatment services for opioid dependence.	2018 to 2022	Start: 22 (per 10,000 population) End: 23	4.54% increase	
	Number of calls to the Victorian Poisons Information Centre.	2018 to 2023	Start: 1,187 End: 1,443	21.57% increase	

Sources: Department of Health Victorian Admitted Episodes Dataset, National Opioid Pharmacotherapy Annual Data collection statistics, Victorian Poisons Information Centre.

Has there been a net benefit associated with introducing SafeScript?

The total number of patients receiving a combination of monitored medicines has decreased while key metrics around the reduction of adverse events has all decreased.

Table E.2: current changes seen across Benefit 2: more effective management of conditions for which medicines monitored in the system are used

KPI	Measure	Data date range	Start and end data points	% of change	Trend
Increase in safer use of high-risk medicines	Number of patients on high opioid doses (>100 MED daily)	September 2018 to December 2023	Start: 9,504 End: 8,760	7.83% decrease	
	Average number of prescriptions for high-risk medicines per patient	July 2018 to December 2023	Start: 1.71 End: 1.85	8.2% increase	
	Number of patients supplied high risk medicine combinations	September 2018 to December 2023	Start: 6,683 End: 4,529	32.23% decrease	
	Percentage of prescribers and pharmacists that are registered to use SafeScript	April 2020 to December 2023 (number of SafeScript users)	Start: 26,660 End: 38,252	43.48% increase	
Increase in compliance with DPCS legislation	Percentage of patient profiles viewed in SafeScript where they had a red/amber notification	April 2020 to December 2023	Start: 39.42% End: 44.63%	5.21% increase	
	Percentage of prescribers and pharmacists that are registered to use SafeScript	April 2020 to December 2023 (number of SafeScript users)	Start: 26,660 End: 38,252	43.48% increase	

Sources: Department of Health Victorian Admitted Episodes Dataset, National Opioid Pharmacotherapy Annual Data collection statistics, Victorian Poisons Information Centre.

Has there been a net benefit associated with introducing SafeScript?

The total number of patients receiving a combination of monitored medicines has decreased while key metrics around the reduction of adverse events has all decreased.

Table E.3: current changes seen across Benefit 3: more effective management of dependence in primary care

KPI	Measure	Data date range	Start and end data points	% of change	Trend
Increase in prescribing of Opioid Replacement Therapy	Number of patients on ORT by annual census.	2018 to 2022	Start: 22 (per 10,000 population) End: 23	4.54% increase	

Sources: Department of Health Victorian Admitted Episodes Dataset, National Opioid Pharmacotherapy Annual Data collection statistics, Victorian Poisons Information Centre.

07 | Appendix F: SafeScript Dashboard and Alerts

Information on SafeScript

Today, SafeScript provides prescribers and pharmacists with an overview of patients' past prescribing and dispensing events of monitored medicines.

The SafeScript dashboard

SafeScript allows users to search for and select a patient's profile. Patient profiles contain patient information including the patient's:

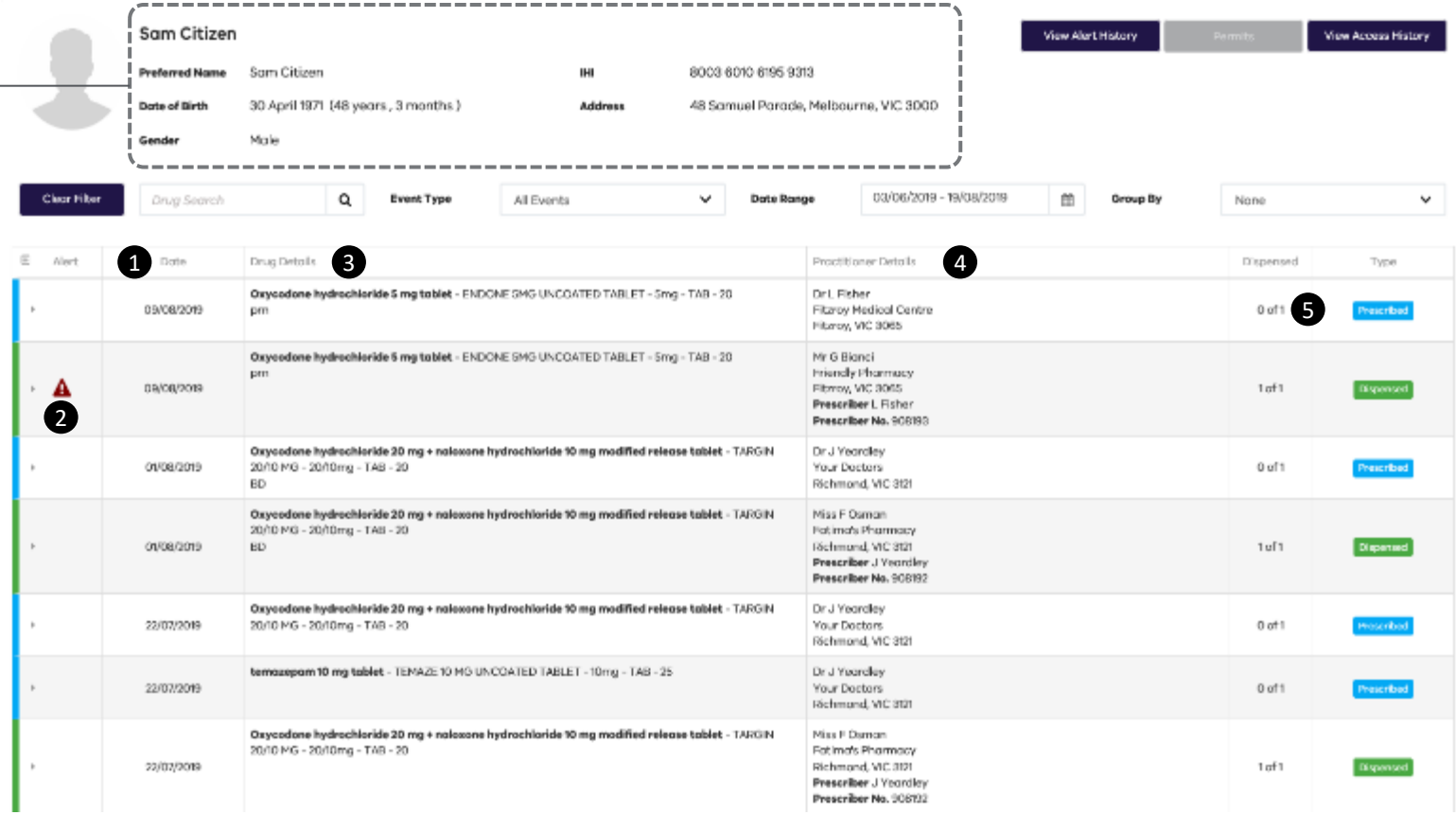
- name
- preferred name
- date of birth
- gender
- Individual Healthcare Identifier (IHI)
- address.

Patient profiles include all prescribing and dispensing events for monitored medicines for each patient. All events are colour-coded: blue indicates a prescribing event and green indicates a dispensing event.

SafeScript contains details on each prescribing and dispensing event including:

1. the date of the event
2. whether the event triggered a SafeScript patient alert
3. details on the monitored medicine being prescribed/dispensed
4. the practitioner involved in the prescribing/dispensing event
5. how many supplies of the medicine have been dispensed.

Figure F.1: an example SafeScript patient profile, including patient details and prescribing and dispensing events



Source: Department of Health, 'Using SafeScript – most commonly asked questions: for prescribers and pharmacists' (May 2020).

SafeScript alert system

SafeScript includes an alert system which notifies SafeScript users of instances where certain risk conditions occur.

Patient notifications and alerts

SafeScript patient notifications are red, amber, or green messages that may pop-up when prescribing or dispensing a monitored medicine on software that is integrated with SafeScript (the online SafeScript portal can be accessed when integration is not available). Pop-up notifications provide click-through access to the patient's history in the SafeScript portal.

SafeScript patient alerts exist within the SafeScript portal and indicate that some clinical risk has been identified, which practitioners need to review and manage appropriately. Alerts within the SafeScript portal (see Figure F.2 and F.3) provide information to assist clinical decision-making but do not dictate whether a health professional should or should not prescribe or dispense a medicine.

Figure F.2: an example of a high-risk SafeScript alert for a patient attending multiple prescribers

Figure F.3: an example of an medium-risk SafeScript alert for a patient attending multiple pharmacies

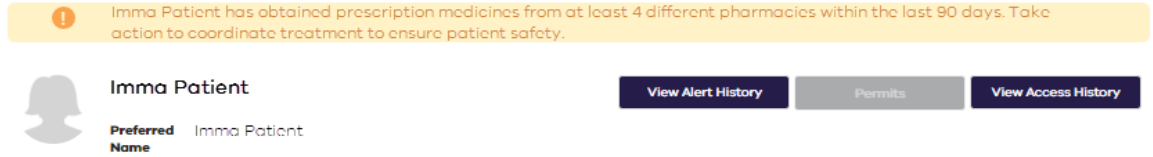


Table F.1: rules for SafeScript colour-coded notification system

Notification colours	Rule
RED	A RED notification will appear when there is a current alert relating to the prescribing/dispensing history of a patient. These high-risk alerts are: • Multiple prescriber events: when a patient has obtained monitored medicines from at least four different prescribers within the last 90 days. • High-risk drug combinations: when prescriptions for certain drug combinations have been recorded in SafeScript within the last 90 days o Methadone and a benzodiazepine o Methadone and a long-acting opioid o Fentanyl and a benzodiazepine o Fentanyl and a long-acting opioid • Opioid dose threshold: when the daily morphine equivalent dose (MED, calculated based on average over the last 90 days) exceeds 100mg MED.
AMBER	An AMBER notification will when there is a current alert relating to the prescribing / dispensing history of a patient. These medium risk alerts are: • When prescriptions for a monitored medicine in the last six months have been issued by more than one prescriber/medical practice, or four or more pharmacies • When the daily MED is between 50mg and 100mg MED.
GREEN	A GREEN notification will appear in the following situations: • When there has not been a prescription issued/dispensed for a monitored medicine in the last six months; or • When prescriptions for a monitored medicine in the last six months have been issued by the same prescriber/medical practice, and there are no alerts.

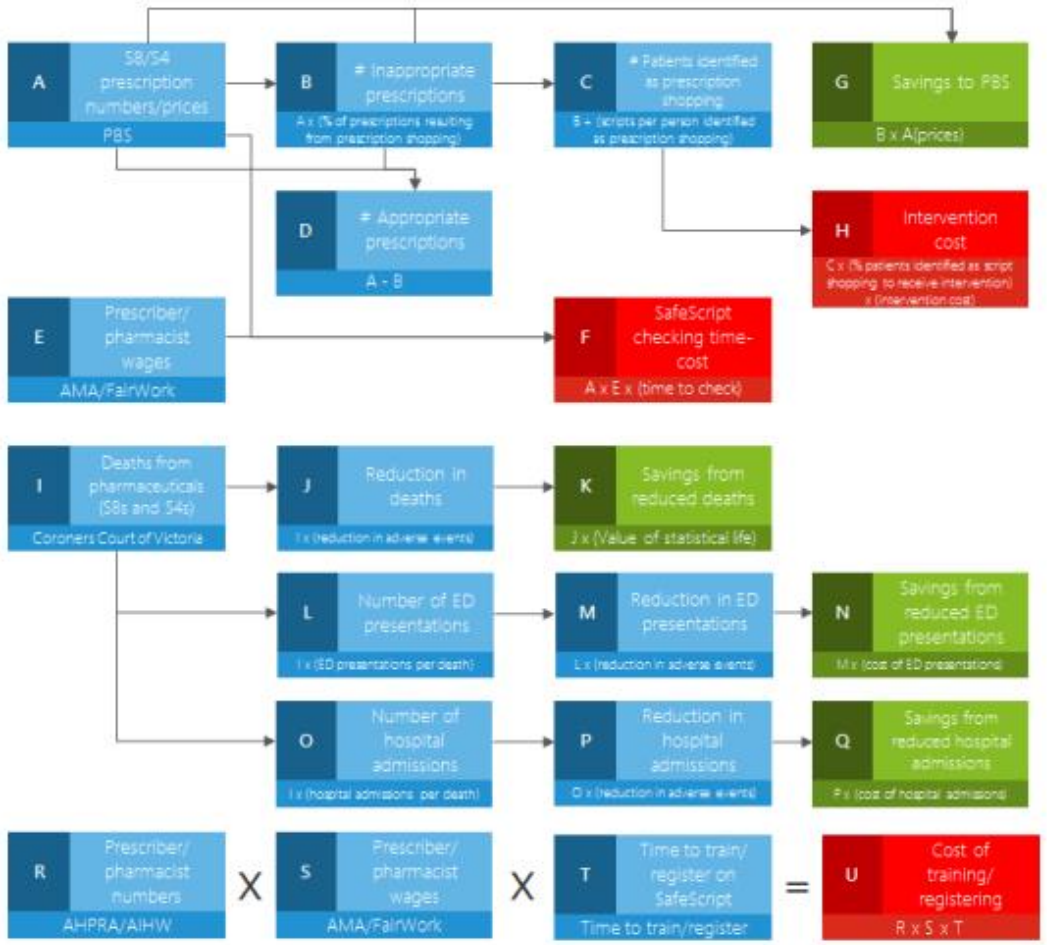
Source: Department of Health.

07 | Appendix G: High Level Cost-Benefit Analysis Framework

High level cost-benefit-analysis framework

This framework provides an overview of the previous cost-benefit-analysis framework used within the 2018 Regulatory Impact Statement

Figure G.1: high level cost-benefit-analysis framework of SafeScript



Source: Deloitte Access Economics, *Regulatory Impact Statement – Proposed Drugs, Poisons and Controlled Substances Amendment (Real-time Prescription Monitoring) Regulations 2018* (2018).

Deloitte.

Limitation of Work

General Use Restriction

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