Pharmaceutical Society of Australia

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2020

Implementation plan

Achieving safer, more effective medicine use by 2023 through digital transformation

PSA Committed to better health

Version control log

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About PSA

PSA is the only Australian Government-recognised peak national professional pharmacy organisation representing all of Australia's 32,000 pharmacists working in all sectors and across all locations. PSA is committed to supporting pharmacists in helping Australians to access quality, safe, equitable, efficient and effective healthcare.

PSA believes the expertise of pharmacists can be better utilised to address the health care needs of all Australians. PSA works to identify, unlock and advance opportunities for pharmacists to realise their full potential, to be appropriately recognised and fairly remunerated.

PSA has a strong and engaged membership base that provides high-quality health care and are the custodians for safe and effective medicine use for the Australian community. PSA leads and supports innovative and evidence-based healthcare service delivery by pharmacists.

PSA provides high-quality practitioner development and practice support to pharmacists and is the custodian of the professional practice standards and guidelines to ensure quality and integrity in the practice of pharmacy.

Contents

About this document

This document describes an implementation plan to achieve the medicine safety and digital health objectives described in *Connecting the dots: Digitally empowered pharmacists*[1].

The document also considers the principles and strategies priorities in the National Digital Health Strategy which describes a vision of delivering better health for all Australians, enabled by seamless, safe, secure digital health services and technologies that provide a range of innovative, easy to use tools for both patients and providers

Introduction

In 2019, the Pharmaceutical Society of Australia (PSA) outlined objectives to see pharmacists more responsible and accountable for medicine safety, enabled by digital health and digital technologies in its report *Connecting the dots: digitally empowered pharmacists.*[1]

In describing the goal, the report defined five key objectives which could be used to describe the realisation of the goal, and its impact on the health of Australians:

GOAL

By 2023, pharmacists will be more responsible and accountable for medicine safety, enabled by digital health and digital technologies

OBJECTIVES

This will be achieved by implementing measures which result in pharmacists being:

- supported with the right patient information, systems, autonomy and clinical skills to safeguard patients against avoidable harm from medicines
- empowered and accountable for identifying and resolving medicine-related problems more systematically in genuinely patient-centred models of care
- accessible wherever medicines are prescribed or used, at a time, format and location that suit the needs and preferences of patients
- more informed regarding risks and benefits of medicines through improved pharmacovigilance and data analysis
- spending more time providing direct patient care, and less time undertaking administrative roles

IMPACT

This will result in consumers being empowered through:

- experiencing pharmacist care that is more active in achieving benefits from medicine while preventing harm
- accessing curated medicines and health information at any time that is convenient for them, in a way they can understand and apply to their health
- support from pharmacists to take a greater role in self-management of medicines, through digital technology
- health care that is accessible wherever medicines are prescribed or used, at a time, format and location that suit their needs and preferences
- a health system that integrates with personal consumer technology, including mobile devices and wearables

Pharmacists in 2023: For patients, for pharmacists, for Australia's health system[3] identified digital transformation as a key action required to unlock opportunities to realise the full potential of pharmacists' knowledge and skills:

> *"Digital transformation: Embrace digital transformation to improve the quality use of medicines; support the delivery of safe and effective and efficient healthcare; and facilitate collaborative models of care"*

Four system changes were identified as enablers of this:

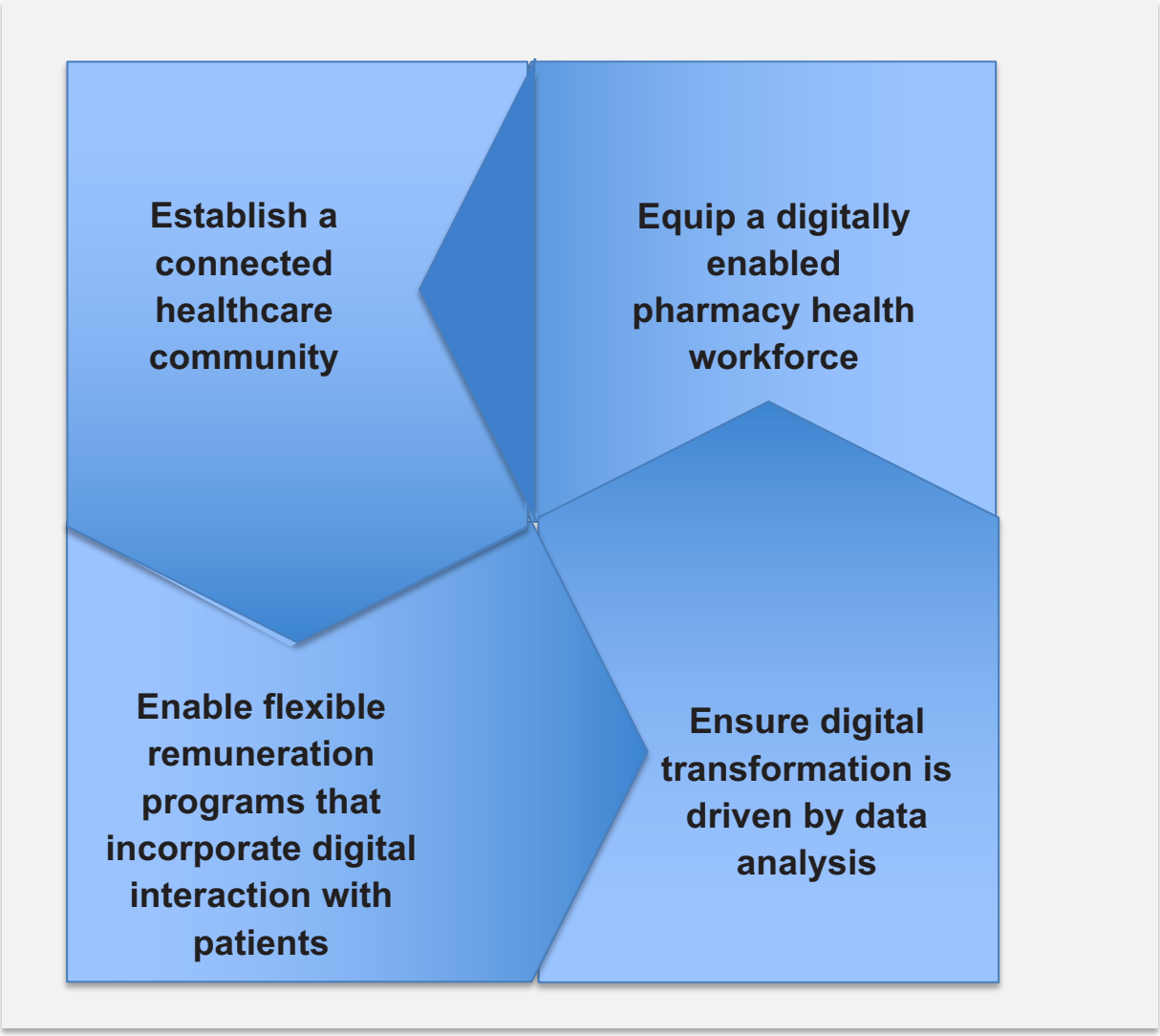

***Figure 1**: System changes required to achieve digital transformation*[3]

Implementation Plan: achieving objectives

Objective[1] By 2023, pharmacists will be:	Description and achievements so far	Barriers	Enablers, including supporting systems	Key workforce strategies to achieve (relative importance)				Planned act
				Workforce training	Communications strategy	Practice change	Other	
• **supported with the right patient information, systems, autonomy and clinical skills to safeguard patients against avoidable harm from medicines**	This objective means pharmacists have the right supports to protect patients against medicine harm. This will require multiple interventions targeting factors of; • Elevating autonomy and confidence to exercise professional judgement • Ensuring pivotal patient information is available at the critical decision points via online systems • Systems are reliable and contain adequate data to be clinically useful to the pharmacist • Clinical knowledge is sufficient to adequately identify and resolve potential medicine harm using available tools. Medicines information via MHR is available to the majority of pharmacists in clinical (patient facing) roles through Clinical Information Systems (e.g. dispensing software), however records not yet fully utilised or able to be considered complete.	Environmental: • Workload limits time for identification, investigation and resolution of medicine related problems Cultural: • Transactional care model not conducive to long-term medicine safety improvements • Early career pharmacists report cultural barriers to professional decision making and good record keeping practice Systems: • Some digital records suffer paucity of data due to non-connected practices, software compatibility or other limitations of systems pharmacists are using. • Different jurisdictions and practice settings at different stages of systems development	Practice change enablers: • Implementation and enhancement to clinical governance systems • Standards to guide practice improvement • Interconnection and integration of siloed information systems (i.e. moving from a dispensing system interface to a single CIS interface) Environmental enablers: • Increased consumer expectations of quality and safety systems (following public royal commissions in health-related areas) • Policy opportunities following declaration of safe and effective use of medicines as a NHPA **Primary supporting systems:** • Pharmacovigilance • Pharmacist Shared Medicine List • Real time prescription monitoring • My Health Record • Secure messaging • Telehealth	++	++	+++	+++	**Practice cha** • Analysis including knowledg infrastruc • Guide so designer proprieto which re [worksho • Practice **Workforce t** • Online tr example (e.g. PSI • Facilitate worksho on high-v and tech effectivel message **Communica** • Engager demonst improvin • Messagi for oppo safety co **Other: Clinic** • Review c developr revised) governar measure 2020/21) • Staged i standard services • Alignmer service p on highe

• **empowered and accountable for identifying and resolving medicine-related problems more systematically in genuinely patient-centred models of care**	The objective means there are clear expectations on pharmacists for medicine safety – both in identifying potential problems and being accountable for their resolution. This will come from: • Better data systems to be able to link professional input and patient outcome • Growth in consumer expectations health professionals will use integrated data to provide safe and effective health care which is specific to them Recent medicine safety reports and initiatives[3,5–9], including declaration of the safe and effective use of medicines as a National Health Priority Area has driven forward pharmacists' pivotal medicine safety role both within the profession (autonomy) and with governments (policy). Pharmacists have been empowered with access to more information through digital systems, such as MHR, RTPM and in some practice settings (including hospitals and aged care) greater integration with the broader health care team.	Cultural: • Impetus for change not clearly defined or understood by profession • Transactional nature of legacy models of pharmacist care • Workload pressure • Culture of non-reporting safety incidents for fear of professional liability, lack of time and inefficient recording systems Regulatory: • Limitations on pharmacists being part of collaborative prescribing team – limits ability to positively influence patterns of medicine use. Financial: • Remuneration models fund activity with quality assumed, rather than measured or verified	Practice change enablers**:** • Development and implementation of measurable quality indicators • Standards and guidelines informed by *Clinical Governance Principles for pharmacy services*[4] • Remuneration models which support adoption of these changes (e.g. accreditation programs, funding linked to clinical outcomes or impact) **Primary supporting systems:** • Pharmacovigilance • Incident reporting • Telehealth • Real Time Prescription Monitoring • Real time decision support	**++**	**++++**	**+++**	**+++**	**Practice change** • Clinical advice servi • Review of all practic *Governance Princip* identify opportunitie capabilities of digita patient information • Development of qua technology (e.g. act use of secure mess management and pl **Workforce training** • Online modules; pha monitoring, pharma medicine-related pr collaboration with p • Clinical case studies role in identifying an related problems. **Communications strat** • Strategy with messa embrace a no-blam Messaging will harn sharing examples o will be done in conc championing the ne • Marketing strategy v to hear, see and int experiences of med format. • Strategy of 'prepare 'rolls-with-resistance technological practi normal-now' workflo • Strategy which expr of health profession incidents to have co **Other**: **remuneration** • Financial recognitio incidents in centralis benefit (initial, propo • Financial incentives effect recording targ follow up, proportion outcome • Linking remuneratio benchmarks informe **Other: prescribing** • Remove barriers to pharmacists can mo use for medicines

• **Pharmacists will be accessible wherever medicines are prescribed or used, at a time, format and location that suit the needs and preferences of patients**	This action concerns the ability for consumers to access pharmaceutical care at any time in the medicine use pathway, in a way which is right for them. Technology is a primary enabler of increasing the availability, speed and reach of communicating health information. MHR and private market CIS (client information systems) have dramatically increased the availability of information, although further work is needed to bring all practitioners and pharmacy practices into the system. The use of these systems where available to pharmacists is highly intermittent due to sub-optimal communications, training and practice change strategies.	Cultural: • Limited culture of clinical note-taking in community pharmacy • Limited guidance and support for pharmacists on how to engage via telehealth, particularly in record-keeping • Limited financial support for innovation to models of care • Low level familiarity with how to use systems • Poor user experience at early implementation stages Technological • External information systems poorly integrated clinical data systems	Environmental enablers: • Consumer demand/expectations on digital accessibility for health services and information increasing Practice change enablers: • Development and/or review of **practice guidelines** incorporate or specifically designed to guide telehealth Funding enablers: • Incorporate **flexibility in remuneration** requirements for services that incorporate digital interactions for consumers (e.g. medicine reviews) • Introduce **mechanisms to remunerate** provision of online medicine safety advice (e.g. subscription app models) • Support for software vendors to effectively integrate external system data (e.g. MHR) into single client information systems and evolve from traditional software systems (e.g. dispense software) **Primary supporting systems:** • Electronic prescriptions • Telehealth • Secure messaging • Incident reporting • MHR	+	++	+++	++	**Practice change** • Review or develop **p** guide pharmacists i particularly video an interaction to shift to model of care • Formal analysis of w practice change stra **Workforce training** • Online modules with using technology av communication and their place in practic management • Face-to-face worksh communicating via t • Clinical case studies technology in practi **Communications strat** • Strategy highlighting accessibility of med systems. The messa through both the ey pharmacists (instruc • Marketing and adve aspects of workforc objective. **Other: Funding and sy** • Support software in platforms (e.g. dispe through funding, en standards and IT sta • Increased flexibility government support appropriate teleheal

• **more informed regarding risks and benefits of medicines through improved pharmacovigilance and data analysis**	This objective looks towards a paradigm shift from a profession largely informed through traditional reference tools which are static and slow to evolve to a profession informed by dynamic data which evolves more quickly to medicine safety issues identified through a combination of health professional reports and previously unidentified trends from real-population big data analysis. Reporting of adverse drug reactions is currently intermittent, particularly outside of practice environments where adequate patient information (full medicine list, pathology, clinical symptoms etc.) is available to lodge an effective report. Similarly, available data is not readily communicable where adverse drug reactions are suspected. Adverse drug reactions which are not driven through consumer symptoms complaints are often difficult to detect in a timely manner without secondary use and analysis of quality data.	Regulatory: • Format and nature of approved medicine information is static and difficult to take meaning from • Difficulty accessing secondary data for medicine research Cultural: • Limited use of adverse drug reaction reporting systems • Systems and workflows not optimised to identify adverse reactions Technological: • Poor integration of CIS and digital health systems with adverse drug reporting tools	Practice change enablers: • More interactive real time information to practitioners with decision support • Workflow efficiency through changes to pharmacist medicine supply and non-supply roles • Workflows in CIS to encourage input of data for new and high-risk medicines to be used in pharmacovigilance • Practitioner support for documenting relevant data in clinical records Regulatory enablers: • Evolution of Consumer Medicine Information (CMI) and Product Information (PI) into more dynamic resources with data informed by enhanced pharmacovigilance systems • Health professionals' access to data from patient mobile apps. This data can include measures of medicine adherence, biomarker records (e.g. blood pressure, heart rate) or monitoring exercise, diet or sleep Financial enablers: • Remuneration models which recognise active and relevant contribution to pharmacovigilance systems **Primary supporting systems:** • Real time decision support • Consumer medicine information • Pharmacovigilance systems • Incident reporting systems	**++++**	**++**	**+**	**+**	**Practice cha** • Developr informati support, with a fo risks and • Incorpora input of c medicine • Developr health do support p relevant **Workforce t** • Online m pharmac responsi technolo situation • Online m informati medicine • Face-to- commun and use • Training focus on recognis systems **Communica** • Strategy pharmac "greater to allow will conv through via pharm • Messagi not an op patient d pharmac engaging **Other (gene** • CPD for indirectly learnings through guideline • Technica collabora system i

• **spending more time providing direct patient care, and less time undertaking administrative tasks**	This objective means pharmacists doing more of what they professionally enjoy most: supporting their patients. This objective will be realised from changes which occur as a result of: • **Efficiency gains** from integration of patient clinical systems • Better use of **big data** sources from complex and distinct datasets • **Automation** of mechanical tasks There are few aspects of this objective which have so far been realised, although back-of-house operation of pharmacist operations have largely been automated (e.g. stock management, invoicing, payroll etc.).	Culture: • Work routine involving daily sequential administrative tasks • Cultural reluctance to actively seek informed consent to enable secondary use of data Regulatory: • Restrictions in secondary use of data Technological: • Workflows for inter-professional communication and patient follow up remain manual and fax/paper based.	Practice change enablers: • Integration of patient information systems into an effective single user interface Financial enablers: • Remuneration models which support genuinely integrated data and automated claiming **Primary supporting systems:** • Client Information systems • Electronic prescriptions • My Health Record • Secure messaging	+	++	++	+	**Practice cha** • Support patient in effective • Change updated **Workforce t** • Webinar/ practice tasks to • Incorpora patient c standing seconda materials • Worksho pharmac particula individua **Communica** • Strategy professio patient in use of ric feature c queuing, prescript patient u **Other: Finar** • Review p payment to suppo submissi

Implementation plan – key recommendations:

The Agency's program of work, in liaison with other government agencies and the health software industry, will create an environment which the vision outlines in *Connecting the dots: digitally empowered pharmacists* can occur.

This implementation plan assumes the continued roll-out and refinement of this program of work to support: electronic prescriptions, real time decision support, MHR, secure messaging, consumer information, national health incident reporting system, broader pharmacovigilance systems, telehealth and PSML.

Based on the pharmacist and pharmacy staff workforce needs and enablers identified above, PSA recommends the implementation of workforce development initiatives categorised into three areas: workforce training, practice change support and communications strategies.

Plan: Workforce training

Workforce training will focus on supporting pharmacists and pharmacy staff to effectively use technology in their daily clinical practice to improve patient safety and optimise care. This will include increasing pharmacists' knowledge of:

- technology available, its place in practice,
- how it can be best incorporated into practice, and
- strategies to ensure its use is effective.

Education for pharmacists and pharmacy staff will focus on:

- new technology available (e.g. electronic prescriptions)
- if new technology is designed to replace or be used in conjunction with existing technology, and how to navigate changes in practice
- benefits of new technology
- risk management
- how technology fits into practice and current workflow (education in this area to be aligned with resources to support practice change)
- how to discuss new technology and changes with staff and patients.

Education will be multimodal, and could include online modules, face-to-face workshops and case studies to highlight changes and new technology available and how they can be best used in practice. Any education materials for pharmacists and pharmacy staff will be aligned to and be designed to be used in conjunction with relevant practice support tools.

Recommendation

Develop and deliver a comprehensive workforce training strategy to educate pharmacists and pharmacy sector staff in use of digital health tools

The strategy should include a balanced mix of instructional training, compelling patient-centred clinical case studies and use medicine safety as the fundamental theme to demonstrate meaningful clinical use.

The strategy should be multi-modal, collaborative and aligned with key digital health roll-out.

Plan: Practice change support

Digital Health is transformative in nature, and as such will have impacts on existing activities, procedures, workflows, and health outcomes. Practice change involves supporting workforce preparedness and preferences through converting knowledge and theory into sustained, meaningful actions. Practice change that incorporates emerging and established digital health initiatives is therefore a complex process that requires expertise in change management & and thorough understanding of pharmacy practice models.

Understanding existing workflow patterns and procedures currently existing in the pharmacist workforce is essential for a controlled evolution of pharmacy practice that implements digital health initiatives. This process takes in to account the different models of pharmacy practice that exist now, recognising that consumer preference and professional standards require diverse models of care.

Industry experience demonstrates the most successful practice change initiatives within the pharmacy sector are sustained, incremental and are well pitched for the stage of change in which the pharmacist's work environment currently supports. This document therefore recommends substantial and cyclical analysis of pharmacist workflow and culture to inform, refine and evaluate the implementation strategy as it is delivered.

Target of practice support

Practice change concerns the implementation of externally and internally driven changes into a specific role. In most of the changes described in this document, the role of practice change is to translate broad ideas and undefined changes into meaningful, relatable and achievable steps to sustained improvement to the way in which pharmacists practice.

For this reason, the supports need to be practice-setting specific (e.g. community pharmacy, hospital pharmacy, consultant pharmacist etc.), and pitched as appropriate at both an organisational level and practitioner/workforce level.

Proposed activities

Practice changes identified in this plan can be categorised into:

- Review of **practice guidelines** and **resources**
- Development and implementation of **quality indicators** and **benchmarks** into practice, such as through real-time data collation and clinical audit
- Introduction of clinical and practice support **advisory services** for pharmacists
- **Analysis of workflow** and **culture** to inform practice change strategy
- Support for software vendors **integrate** and **evolve practice software** systems with a focus on simplifying, enhancing and informing workflows, clinical reasoning and documentation

Analysis of workflow and culture, as well as expert input, may identify further measures which may be needed. Other practice change strategies which may be identified during this process could include:

- Consulting services for change management. For example, PSA has previously facilitated programs which facilitated workshops and follow up sessions to form collaborative care teams (e.g. across PHN catchments)
- Practice base clinical and process self-audit, including resources development
- Use of change champions and mentors to facilitate and permanently embed change

Recommendation

Develop and deliver an integrated pharmacist digital health practice change program synchronised with the workforce development and communication strategies.

The program should be practice-setting specific and be heavily driven by ongoing analysis on culture and workflow to inform and refine strategies.

The program should be targeted at both an individual practitioner and organisational level.

Outputs of the program will be informed by ongoing analysis, but will at the least include revised and new practice standards, benchmarks, software industry liaison, mentors and practice advisors and change champions.

Plan: Communications strategy

Existing pharmacist-specific communications and marketing material regarding digital health have traditionally focussed on individual initiatives, mainly in the form of advertising to inform pharmacists of the launch of guidelines, availability of training or seeking practitioner feedback into consultations or surveys.

While these are valuable approaches to communicating specific details, these initiatives alone do not achieve the mental paradigm shift needed for pharmacists to sustainably shift their practice to a 'digital-as-normal' approach.

An effective and comprehensive communication strategy is needed to support pharmacists:

- understand the nature and significance of digital technology in their own practice to improving medicine safety for their patients

- become genuine champions, actively promoting and facilitating digital health literacy and achieve uptake by consumers

Target of strategy

The campaign should be targeted at two distinct groups within the profession as part of a two-pronged communication strategy:

- **Early career pharmacist (<35 years age or <10 years practice experience):** This group is generally technology literate, having grown up with digital technology, although not specifically in the area of digital health. This group tends to adopt tools through exploration/trial-and-error approach. They tend to be more adaptive to technological change where they understand its relevance to their work.

  This group will benefit primarily from practical examples of clinical application of technology and strategies which provide confidence and autonomy in their professional role.

- **Experienced pharmacists (>35 years age and >10 years practice experience):** This group generally has a greater sense of professional autonomy and greater clinical practical experience. The generally adopt new technology through linear instruction in use of tools, and strategies which promote confidence in the technology**.** They also require greater support to overcome entrenched models of practice and recognise the value of digital options in improving patient care.

  This group will benefit primarily from online learning which explains how to use each tool and gives guidance on the functionality and limitations of each tool – including providing reassurance to system integrity and fallback options for use in the event of system failure.

These practice profiles should be further informed through workforce survey.

Development of communication strategy

The strategy

The strategy will require an appropriate balance of instructional and ideas-based messaging, cognisant of the dual objectives of developing understanding and creating champions of change.

The strategy must effectively communicate meaningful, relevant, clinical use of digital health as the normal, everyday approach to providing pharmacist care.

Experience has traditionally seen pharmacists respond positively to messages which are crafted to be direct and instructional. This should be kept in mind in crafting and delivering messages which are more conceptual. Strategy development should heavily draw on industry expertise, leadership and be informed through workforce-specific testing.

The delivery

The strategy will need to be comprehensive and multimodal. The following channels and techniques be considered to form part of the strategy:

- Communications campaigns: including but not limited to mainstream media and trade media campaign, development of online video testimonials (patients with lived experience and pharmacists) etc.
- Direct messaging via advertising and promotion: including, electronic mailing, targeted social media advertising
- Marketing campaigns: including but not limited to paid electronic mailing, display advertising (online and print), printed materials etc.

Recommendation

Develop and deliver a three-year comprehensive, targeted, multi-level pharmacist workforce communications strategy to support effective paradigm shift to a digitally transformed profession.

The strategy requires a sustained high-level ‘paradigm shift’ to a ‘digital-as-normal-now’ approach, in addition to communicating specific digital health changes and initiatives as they occur.

The strategy will should be targeted at two distinct groups within the pharmacist workforce:

- **Early career pharmacists: (<35 years age or <10 years practice experience):** primary focus on clinical scenarios and demonstrating meaningful case examples
- **Experienced pharmacists (>35 years age)**: Focus on how to use digital tools as they are rolled out

The strategy should involve a range of communication avenues including marketing, advertising, social media, direct messaging and printed resources.

Plan: Other strategies (co-dependencies with digital health initiatives)

While outside the immediate scope of this digital health implementation plan, the document has identified concurrent dependencies for the ‘digital-as-normal’ goals to be achieved:

- **Clinical governance**: review and implementation of standards, outcome measures and patient safety systems
- **Prescribing**: Removal of barriers to collaborative prescribing
- **Remuneration**: including incentivisation to engage in medicine safety systems, meet quality benchmarks and ensure remuneration models incorporate adequate flexibility to support innovative pharmacist care.
- **Continuing Professional Development (CPD)**: Evolution of CPD programs to incorporate health system learning from pharmacovigilance and incident-recording systems.

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