Safer Care Victoria

MCH Systems Focused Review Tool – Guidance Document

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Reviewing community-based unexpected deaths or serious harm with a systems lens

Guidance for using the systems-focused review tool

Background

To date, Maternal and Child Health (MCH) services have not had state-wide guidance or processes to undertake systematic reviews of unexpected deaths or serious harm of clients that have occurred in the community. This tool provides the opportunity for MCH services to use a systematic approach to undertake case reviews when they have provided MCH services to clients.

Reviewing adverse events is a beneficial practice, as it can help to:

- integrate systems thinking principles in review processes
- highlight potential gaps in practice and areas for improvement in systems and processes.

Documenting reviews via thorough review practices also provides evidence when clinical notes are requested by bodies such as the Coroners Court of Victoria or the Consultative Council of Obstetric and Paediatric Mortality and Morbidity (CCOPMM).

Who should use the tool?

Victorian MCH services can use this tool to review events that occur in the community including unexpected deaths of or serious harm to a mother/carer and/or child. This may occur for CCOPMM or other instances.

CCOPMM

CCOPMM may request a MCH service's client files and any event review undertaken. Legal provisions covering CCOPMM are found in Division 3 of Part 4 of the **Public Health and Wellbeing Act 2008** (https://www.legislation.vic.gov.au/in-force/acts/public-health-and-wellbeing-act-2008/061).

- S46 sets out its functions, which include to conduct study, research and analysis into the incidence and causes in Victoria of maternal deaths, stillbirths and the deaths of children; and to consider, investigate and report on any other matters referred to CCOPMM by the Minister or the Secretary.
- S47 authorises the Chairperson to request a person who provided care or services to a child before their death to provide information specified in a written notice and authorises the person to provide the information.
- Confidentially provisions apply to all consultative council members (section 42).
- Documents created for the sole purpose of providing information to CCOPPM and provided to it cannot be produced to a court or tribunal or any board, and the FOI Act and Health Records Act do not apply (section 43).

MCH services can anticipate a request from CCOPMM and use this review tool to undertake a systems focused review on unexpected deaths of or serious harm to a mother/carer and/or child. Documents created for the sole purpose of providing information to CCOPPM and which are provided to it cannot be produced to a court or tribunal or any board, and the FOI Act and Health Records Act do not apply (section 43). Therefore, where information is prepared for CCOPMM by the MCH service, it should be clearly identified as being prepared for that purpose.

If a report has been prepared for CCOPMM, it will be unnecessary for the MCH service to use this tool to undertake an additional review.

Outside of preparing a report for CCOPMM

If your MCH service is operated by local government, please **do not use this tool** before checking with your insurer (for those insured by MAV Insurance contact DL_Insurance@mav.asn.au) whether the death or harm may result in:

- a compensation claim against the council, e.g. if there is the potential that a claim may be made alleging that the MCH service/council has been negligent; or
- a coronial investigation or inquest, where there is the potential for a finding or recommendation being made in relation to the MCH service/council.

This tool is designed to identify improvement opportunities in MCH systems and processes. It does not replace existing incident reporting for workplace clinical and occupational health and safety incidents. Table 1 provides examples of circumstances where this tool may be applied.

Table 1: When to use this tool – in scope and out of scope circumstances relating to the unexpected death or serious harm of a client

In scope	Out of scope
Unexpected death or serious harm involving: • Sudden unexpected infant death (SUDI) • Sleeping accidents • Bruising on an immobile infant • Malnutrition (infant/child) • Child death • Child known to child protection services • Maternal self-harm or suicide/filicide • Family violence	• Vaccination reactions e.g., anaphylaxis • Minor injuries/accidents • Motor vehicle/transport accidents • Pre-existing medical conditions (e.g., cancer, cardiac causes)

Concerns about professional performance or behaviour are managed through existing organisational processes, not through the review process. The review can continue if these issues are identified, with the focus remaining on systems and processes.

Development of the tool

The tool is an adapted version of the structured judgement review methodology[1] (SJRM). The SJRM is a validated review method that evaluates patient care by combining a quantitative assessment with explicit judgement statements. It divides a case into distinct phases of care and reviewers are asked to make safety and quality evaluations of phases of care, to make written comments about care for each phase, and to score care for each phase. The method avoids asking reviewers to judge whether adverse outcomes were preventable. The SJRM is

[1] Hutchinson, A., Coster, J.E., Cooper, K.L., Pearson, M., McIntosh, A. & Bath, P.A. (2013). A structured judgement method to enhance mortality case note review: development and evaluation. *BMJ Quality and Safety, 22*, 1032-1040.

widely used in the English National Health Service by the College of Physicians[2]. It has been adapted by Safer Care Victoria for CCOPMM case reviews. This adaption has been further modified for use in MCH Services.

Key concepts and principles

Systems thinking

Systems thinking describes the process of applying a systems lens when considering why a certain event occurred. The key principle of systems thinking is that events occurring in complex systems are the result of several contributing factors interacting in the community and health system.

Note: This systems model has been modified in the tool to include a cultural and societal factors layer. This is to acknowledge that adverse events occurring in the community can be impacted by several external factors such as client safety, living arrangements, support networks, care availability/accessibility and language.

Systems thinking principles

- Unexpected deaths and significant harm result from multiple contributing factors, not a single root cause.
- Consider the systems context in which certain events occur.
- Events can be impacted by a lack of communication and feedback across levels of the community and health system.
- Work practices change over time under the influence of pressure and demands.
- The easiest way should be the safest way by design.
- Systems improvements need to reflect systems complexity.

[2] Royal College of Physicians (2016). Using the structured judgement review method – clinical governance guide to mortality case record reviews. National Mortality Case Record Review Programme, retrieved from https://www.rcplondon.ac.uk/sites/default/files/media/Documents/NMCRR%20clinical%20governance%20guide_1.pdf?token=AS-qWBcA

Figure 1. The health sociotechnical system model

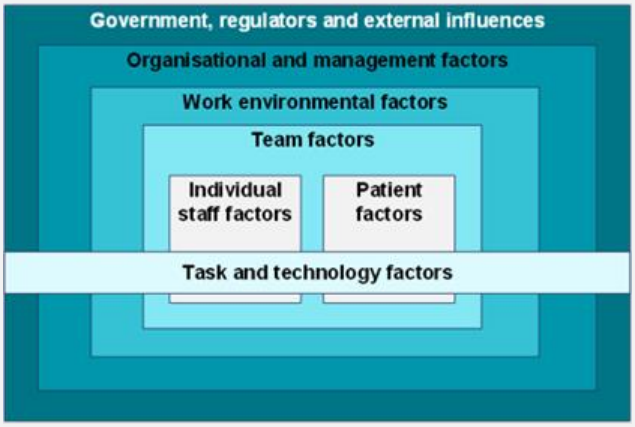


Figure 2. Systems contributing per systems heading

Government, regulators and external influences	Regulations, funding, links with external health services & colleges
Organisational and management factors	Financial resources & constraints, organisational structure, policies and standards, safety culture
Work environmental factors	Staffing, workload and shift patterns, design of equipment and environment
Team factors	Communication, supervision, team structure, leadership
Task and technology factors	Task design and clarity, availability and use of protocols, decision-making aids
Individual staff factors	Knowledge and skills, competence, physical & mental health
Patient factors	Condition (complexity & seriousness), language and communication & social factors

Figure 1 and 2: The health sociotechnical system, based on the London Protocol Contributing Factors Framework[3]

Just Culture

When reviewing events occurring in a complex system, it is critical to apply the principles of a Just Culture by focusing on systems rather than individual staff performance. This is important to ensure the review process is fair, objective and in line with contemporary safety science.

A Just Culture acknowledges that it is inevitable that adverse events occur in complex systems. A Just Culture is a learning culture where events are viewed as opportunities to learn and further improve systems and processes within an organisation to ultimately improve care.

Just Cultures oppose a name, shame, blame mentality by shifting the focus from an individual's actions to the broader organisation. It views safety and accountability as a balance between the design of the broader system and the actions of the people working in the system. Underpinned by systems thinking, Just Culture principles are in line with contemporary safety science, which recognises that adverse events in complex systems occur due to a combination of multiple interacting factors.

[3] Taylor-Adams, S & Vincent, C. (2001). Systems analysis of clinical incidents – The London Protocol, https://www.imperial.ac.uk/patient-safety-translational-researchcentre/education/training-materials-for-use-in-research-and-clinical-practice/the-london-protocol/

How to use the tool – steps

Step 1 – Gather evidence and record event details

Gathering evidence includes collating client information, clinical notes, and may include interviewing staff and clients.

Record relevant background information in the review tool, including all MCH service delivery details provided to the client, obtained through the Child Development Information System (CDIS).

Reviews should be undertaken by a minimum of two people and reviews teams should not include staff members directly involved in client care. Reviews should always include at least one person who is an MCH expert and one person from the organisation who is outside of the MCH Service (for example, Occupational Health and Safety (OHS), Human Resources).

Review team members may include:

- MCH lead from MCH service
- MCH clinical representatives - UMCH (Universal MCH), EMCH (Enhanced MCH), MCH Line
- MCH team leader/coordinator representative
- Organisational representative outside MCH Service (for example, OHS, Human Resources)
- MAV (Municipal Association of Victoria) - MCH Policy and Program Lead
- SCV (Safer Care Victoria) - MCH Advisory
- DH (Department of Health) - MCH Program Management
- External to MCH expert (applicable to case)
  - Paediatric
  - Child Protection
  - Family Violence
  - Mental health
- Consumer representative.

Step 2 – Summary of the event

Summarise the event based on the information provided by the MCH service. Summaries should:

- be succinct (not more than 500 words).
- tell the story and set the scene.
- contain factual and evidence-based information only (no opinions).
- have acronyms spelt out
- de-identify information where possible, e.g. refer to roles instead of names, e.g. nurse, client.

This is a living document, and you will need to revisit, review and refine it throughout the review process.

How it looks in the tool:

Summary of event (example)

Mother M (Gravida 2 Para 2 [G2P2]) and Father F (second time father).

Baby B was born on 20/06 at 37.6 weeks following spontaneous labour and a vaginal birth. Apgar 9:9. Birth weight: 3690grms.

Day 1 - 21/06. The Birth Notification was sent to the local government Maternal and Child Health (MCH) service on 21/06.

Day 3 - 23/06. Mother M and Baby B remain in hospital for 3 days prior to discharge. Baby B was breastfeeding on demand. Discharge Weight: Day 3: 3490grm; ↓200grms. Domiciliary/Extended Postnatal Care visit booked for 25/06 Day 5. A Discharge Summary was sent to the MCH service.

Day 4 - 24/06. MCH service administration staff contact the family and schedule the first Home Visit appointment for Day 10 on 30/06, and the 2-week Key Age and Stage (KAS) consultation as a centre visit on Day 18, 08/07.

Day 5 - 25/06. Domiciliary/Extended Postnatal Care visit conducted. Baby B breastfeeding. Weight: 3600grms ↑110grms from Day 3 Weight. Mother M and Baby B well. Plan – Review 30/06 on Day 10 at Home Visit by MCH.

Day 10. 30/06. MCH first Home Visit conducted. Mother M reported Baby B to be sleeping and feeding well. Weight: 3800grms ↑200grms in 5 days. Safe sleeping discussed. Mother M breastfeeds Baby B in bed during the night but places Baby B in bassinette next to bed for sleep. Bassinette meets safe sleeping checklist. Mother M smoked 5 cigarettes per day up until 20 weeks gestation then ceased. Father F smokes 10-15 cigarettes per day. Smoking discussed and QUIT offered. Plan: Review at 2-week KAS visit on Day 18, 08/07.

Day 18 - 08/07. 2-week KAS visit attended at MCH centre. Mother M and Baby B well. Baby B breastfeeding 8-10 times per day. Weight: 4000grms, increase 200grms in 8 days. Physical examination normal. Review at 4-week KAS visit.

Day 28 - 18/07. 4-week KAS visit attended. Mother M and Baby B well. Maternal health and wellbeing check normal, Family Violence screen - no concerns identified. Weight: 4550grms ↑550grms in 10 days. Continues to sleep in bassinette day and night. Mother M breastfeeds Baby B in parent bed at night. Review at 8-week KAS visit.

8 weeks - 20/08. 8-week KAS visit attended at MCH centre. Mother M and Baby B well. Baby B breastfeeding 8-10 times per day. Weight: 5350grms ↑800grms in 4 weeks. Physical examination normal. Immunisations up to date. Review at 4 months KAS visit.

4 months - 20/10. 4-month KAS visit attended at MCH centre. Mother M and Baby B well. Baby B breastfeeding 5-8 times per day. Weight 6600grms ↑1250grms in 8 weeks. Immunisations up to date. Baby B now in cot. Mother M breastfeeds at night in parental bed. Review at 8-month KAS visit.

4 months - 26/10. Mother M and Father F consumed alcohol in evening. Mother M breastfeeding Baby B in parental bed during night. Fell asleep and awoke 3 hours later to find Baby B unresponsive. CPR commenced; Ambulance called. Baby B pronounced dead by MICA paramedic.

Step 3 – Develop a timeline

A timeline is a chronological depiction of a sequence of events that provides a clear understanding of what happened. Timelines identify who, what, when and where in each box.

The timeline should include:

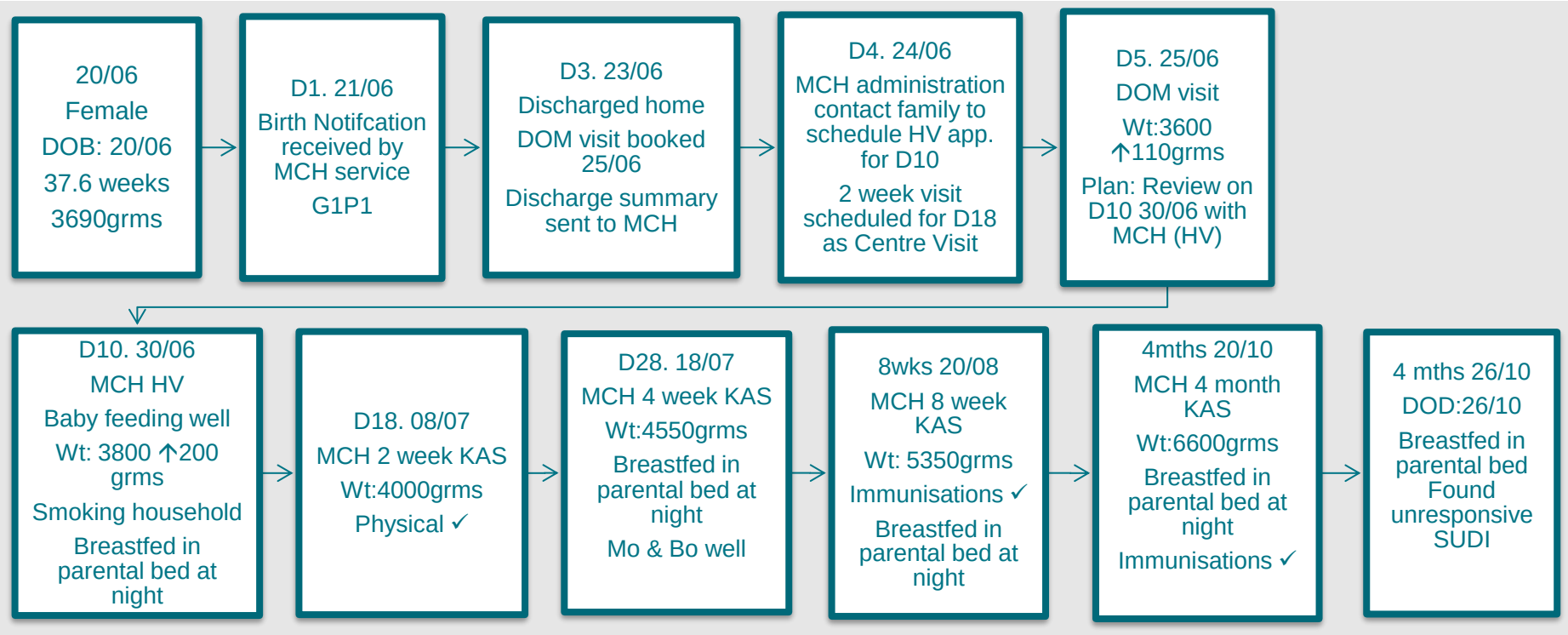
- the outcome under review
- each MCH service contact or consultation (episode of care) that was involved in the case under review, including contact with external agencies
- events that did occur, not what should have occurred
- other known, key events relevant to the outcome, such as hospital admissions or police involvement
- include a key if acronyms are used.

Tips for developing a timeline:

- begin by identifying the start and end points, such as the first client and MCH touchpoint and the client outcome. These points will vary depending on the event under review
- de-identify information, e.g. Nurse A, Client A
- include more information initially and refine this over time to prevent missing important detail
- clustering timeframes can capture a longer period of time within one box
- Microsoft Office programs Visio and PowerPoint are useful tools for developing a timeline.

How it looks in the tool:

Timeline (example)



Key

Bo: Baby
BW: Birth weight
DOB: Date of birth
DOD: Date of death
DOM: Domiciliary
G2P2: Gravida 2 Para 2
GP: General practitioner
HV: Home visit
Mo: Mother
MCH: Maternal Child Health
Wt: Weight

Step 4 – Identify systems contributing factors for each episode of care

This step involves three evaluations to be made against different layers of the system:

- regulations, government, and external influences
- cultural and societal factors
- organisation and management
- task and technology
- work environment
- team
- staff
- client (mother/carer)
- client (infant/child).

I. **Column A: For each applicable MCH episode of care select (using the tick box) the contributing systems factors as identified in the information provided by the MCH service.**

The tool is flexible, and you can skip episodes of care that are not applicable to the case under review.

IMPORTANT: To further develop the contributing factors framework during the piloting phase, please record any other contributing systems factors you identified. These will be added to the contributing factors framework by the SCV tool development team.

II. **Column B: Describe which systems factors were working well**

While the cases under review all have adverse outcomes, there are likely some systems elements and aspects of care that worked well. It is important to capture those to obtain a full picture of the quality of care provided. Please describe which systems factors worked well for each for each episode of care, where applicable.

III. **Column C: Describe which systems factors could be improved**

Describe any systems factors that were identified as not working well and may have contributed to the adverse outcome under review.

How it looks in the tool:

Column A **Identify which contributing systems factors influenced the outcome under review (by ticking the box).** ***Please record any other factors you identify which are not already included.***	**Column B:** **Which systems factors were working well?** ***Please describe any systems factors that were working well in each respective systems layer, despite the adverse outcome of this event.***	**Column C:** **Which systems factors could be improved?** ***Please describe any systems factors that did not work well and may have contributed to the adverse outcome.***
Regulations, government, and external influences	**Which systems factors were working well?**	**Which systems factors could be improved?**
☐ Weather conditions impacting transport ☐ Remote/rural geographic location ☐ Availability of ambulance/PIPER ☐ Consistency of protocols and clinical guidelines across Victorian MCH services ☐ Impact of pandemic or natural disaster (e.g., COVID-19, floods, bushfire) ☐ Communication between the multiple agencies involved ☐ Level of antenatal, post-natal or MCH care received		
Please record any other contributing systems factors relating to regulations, government, and external influences here:		

Step 5 – Overall quality of care evaluation

Step 5 of the review tool is to provide an overall evaluation on the quality of care of the case.

How it looks in the tool:

What is the overall evaluation on systems factors contributing to the quality of care of this case?
☐ No significant systems factors contributing to the outcome were identified ☐ No significant systems factors contributing to the outcome were identified, however unrelated systems issues were identified ☐ Significant systems factors contributing to the outcome – opportunities for learning identified and addressed by health service

Step 6 – Findings

- Findings should be written as clear, concise statements based on the outcome of the analysis completed in steps 4 and 5.
- Findings should show the link between the contributing factors identified and the outcome under review.
- Finding statements should focus on the system and process as per your analysis output.
- These statements support why the recommendations are important in addressing system issues.

Examples of findings from the example case:

1. Safe sleep preventative information including the MCH Key Age and Stage First Home Visit tip sheets for safe sleeping was provided to the family.
    a. MCH safe sleeping tip sheets include a safe sleeping checklist, topics for discussion with parents and a brochure on safe sleeping: sleep baby safely and reduce the risk of sudden unexpected death in infancy.
2. Baby was at increased risk due to:
    a. being a vulnerable infant (maternal and family smoking and alcohol consumption),
    b. exposure to external stressors (shared sleep arrangements)
    c. being in the critical developmental period (0-12 months of age, greatest risk between 2-4 months).

    The above findings meet the conditions of the Triple Risk Model[4] which may lead to sudden and unexpected death.
3. Parents shared a sleep space with baby.

[4] Queensland Clinical Guidelines. Safer infant sleeping. Guideline No. MN22.71- V1-R27. Queensland Health. 2022. Available from: http://www.health.qld.gov.au/qcg

Step 7 – Recommendations

- Include at least one recommendation for each finding.
- Focus on systems, not individuals.
- Consult relevant staff before finalising recommendations.
- Ensure recommendations are SMART: specific, measurable, achievable, relevant and timely.
- Allocate a responsible role.

Examples of recommendations, from the example case using recommendation categories from the tool (p.13):

- **Checklists/cognitive aids: Develop a checklist for practitioners to support client needs identification and goal directed care planning (Moderate Action).**

  MCH safe sleeping preventative information, including check lists, discussion points with parents and brochures on safe sleeping could be strengthened with the adoption of the risk minimisation approach provided by the Queensland Clinical Guidelines, Translating evidence into best clinical practice: safer infant sleep (2022)[5].

  Advocate to Department of Health / Safer Care Victoria for adoption of Queensland Clinical Guidelines in Victorian MCH services.
- **Education using simulation-based training with periodic refresher sessions/observations (Moderate Action).**

  At clinical supervision sessions practice MCH nurse and family communication strategies for safer infant sleep in a simulated environment with reflection and debriefing.
- **Warnings: Add alert notification to client management systems or case management software (Weak Action).**

  Add risk factor to the MCH client management system, so at each MCH consultation there is a reminder to follow up on parental goals related to safe sleeping.
- **New procedure/memorandum/policy: develop a new policy for staff with the goal to increase compliance (Weak Action).**

  On adoption of strengthening MCH safe sleeping messages through the risk minimisation model, develop local guidelines to support clinical practice.

[5] Queensland Clinical Guidelines. Safer infant sleeping. Guideline No. MN22.71- V1-R27. Queensland Health. 2022. Available from: http://www.health.qld.gov.au/qcg

Recommendation strength	Recommendation category	Example
Strong actions	Architectural/physical changes in surroundings	Change the location / orientation of the front reception desk to ensure staff can see who is entering the site at all times.
Strong actions	New devices with usability testing	Provide ready-to-use infant scales with easy-to-understand instructions, to households considered at risk or otherwise vulnerable.
Strong actions	Engineering control (functions which force the user to complete the action)	Automatic system in place for follow up of clients with escalation trigger in place if unreported.
Strong actions	Simplify process and remove unnecessary steps	Tailor automatic SMS/email messaging to the needs of families to reduce message fatigue.
Strong actions	Tangible involvement by leadership	Participate in site safety audits, interact with staff, support access to required expertise, ensure staffing and workload is balanced.
Moderate actions	Increase in staffing/decrease in workload	Make back-up staff available at open sessions to assist at times when client visits peak.
Moderate actions	Software enhancements or modifications	Greater use of video capabilities for routine monitoring of clients.
Moderate actions	Eliminate/reduce distractions	Improve soundproofing of interview / consultations rooms so practitioners are less exposed to distractions and noise.
Moderate actions	Education using simulation-based training with periodic refresher sessions/observations	Practice client de-escalation strategies in a simulated environment, with after-action critiques and debriefing.
Moderate actions	Checklist/cognitive aids	Develop a checklist for practitioners to support client needs identification and goal directed care planning.
Moderate actions	Eliminate look- and sound-alikes	Do not store medications that look alike next to one another in a pharmacy, dispensary or supported accommodation setting.
Moderate actions	Standardised communication tools	Develop and implement templates for minimum client referral, handover, or transition notes.
Weak actions	Double checks	One person checks a site is secure at the end of the day, another person reviews their assessment before leaving.
Weak actions	Warnings	Add alert notifications to client management systems or case management software.
Weak actions	New procedure/memorandum/policy	Develop a new policy for staff with the goal to increase compliance.
Weak actions	Training	Train staff in following policies, protocols, and procedures.