

Violence, abuse and neglect evidence strategy

2021–2025

A strategy to guide the development and use of robust evidence by NSW Health in the prevention and response to violence, abuse and neglect



**PREVENTION AND RESPONSE TO VIOLENCE ABUSE AND
NEGLECT**

NSW Ministry of Health
1 Reserve Road
St Leonards NSW 2085

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Contents

Statement of commitment to Aboriginal families and communities.....	4
Executive summary	5
Glossary of terms.....	7
Section 1. Introduction	9
Section 2. Identifying and supporting priorities for research and evaluation	15
Section 3. Key concepts in research design and methods	23
Section 4. Assessing the quality and appropriateness of evidence.....	39
Section 5. Knowledge translation and exchange (KTE)	49
Section 6. NSW Ministry of Health Population Health guidance series.....	56
Bibliography.....	58
APPENDICES.....	60

Statement of commitment to Aboriginal families and communities

Aboriginal people are the first peoples of Australia and are part of the longest surviving culture in the world. With more Aboriginal people living in NSW than in any other Australian state or territory, improving the health and wellbeing of Aboriginal communities is a key focus for the NSW Government. It is the resilience of Aboriginal people that provides the very foundation upon which further efforts to improve Aboriginal health and wellbeing can be made.¹

The consequences of colonisation, as well as social determinants of health, such as education, employment, and housing, have had a devastating impact on the social, emotional, economic, and physical living conditions of Aboriginal people for more than 200 years. These factors continue to directly contribute to the health disparities experienced by many Aboriginal communities and the significant over-representation of Aboriginal children and young people in the statutory child protection system. An appreciation of these factors is critically important to closing the health gap between Aboriginal and non-Aboriginal people.

NSW Health recognises that Aboriginal health encompasses not only the physical wellbeing of an individual, but also the social, emotional and cultural wellbeing of the whole community within which each individual is able to achieve their full potential as a human being.² As such, there exists an appreciation that the health of each individual is inextricably linked to the health and wellbeing of the wider community.

Aboriginal children, like non-Aboriginal children, are vulnerable to the impact of trauma through direct exposure to an accident, family violence or abuse.³ In addition to this, it is important to acknowledge the individual and collective experiences of trauma from historical events associated with the colonisation of Indigenous land and with genocide, which can be profound. The passing of trauma legacies through generations to children is intergenerational trauma.

Although the effects of childhood trauma can be severe and long lasting, recovery can be mediated by interventions that nurture the spirit, resilience and cultural identity of Aboriginal families and communities. Genuine appreciation and understanding of the impact of power dynamics, the importance of Aboriginal worldviews, and the limitations of Western approaches in the assessment and treatment of trauma is central to demonstrating respect for the lived experiences of Aboriginal people.

NSW Health is committed to supporting the ongoing efforts of Aboriginal people and their communities in reducing the impact of the social determinants of health, as well as the effects of individual and collective trauma legacies, to improve the health and wellbeing of Aboriginal families and communities in NSW. NSW Health recognises the significance of family and community to identity and is committed to Aboriginal families being connected and determining their own futures.

¹ NSW Ministry of Health. (2012). *NSW Aboriginal Health Plan 2013-2023*. North Sydney: NSW Ministry of Health.

² National Aboriginal Health Strategy Working Party. (1989). *A National Aboriginal Health Strategy*. Canberra: Department of Aboriginal Affairs.

³ Atkinson, J. (2013). *Trauma-informed services and trauma-specific care for Indigenous Australian children*. <https://www.aihw.gov.au/getmedia/e322914f-ac63-44f1-8c2f-4d84938fcd41/ctg-rs21.pdf.aspx?inline=true>

Executive summary

The Violence, Abuse and Neglect (VAN) Evidence Strategy aims to improve health service investment and health outcomes for people experiencing, or who are at risk of experiencing violence, abuse and neglect. There is an increasing need to use new approaches and build capabilities to find robust answers to policy, practice and service delivery questions. The strategy is a starting point for Ministry of Health staff working in violence, abuse and neglect policy areas to strengthen statewide responses by:

- better understanding the strength and appropriate use of different information sources to build a strong evidence-informed culture
- translating evidence to inform policy, program and service model development
- supporting system-wide implementation of best practice
- identifying gaps, and prioritising and allocating resources where most needed.

The strategy aims to summarise the extensive information about research and evaluation approaches and outcomes. At times, staff may lack knowledge, confidence or experience in undertaking research and evaluation or understanding the different types of evidence used in policy work and service development. The strategy does not replicate other comprehensive resources, but rather provides an overview of key concepts and approaches to research and evaluation. The strategy includes references to key information sources for readers who want more detailed information about particular streams.

Section 1 presents findings from the consultations that informed the strategy's development and why there is a need for an evidence strategy in this space, as well as

providing linkages to other strategic NSW Health priorities.

Section 2 includes five strategic areas and key activities prioritised by Ministry of Health staff working in violence, abuse and neglect policy and service development. These are:

- strategic partnerships
- effective use of data and existing evidence
- sustainability
- co-ownership and co-design
- identifying and prioritising evidence needs.

Section 3 provides a summary of different research and evaluation approaches, and in particular, an understanding of research design and methods that underpin the strategy's implementation. This includes an overview of necessary steps to undertake a study from formulating a clear research question, to communicating the findings to influence target audiences.

Some guidance is provided as a starting point for tailoring approaches to research and evaluation with Aboriginal people and their communities to ensure cultural appropriateness, safety and partnership approaches.

Section 4 details different study designs and their strengths and weaknesses. It explores considerations for assessing a study's quality and appropriateness to inform an evidence base. A hierarchy of evidence for consideration explains why the evidence under review should be both the best available and most appropriate for answering the research or evaluation questions and meeting the purpose of the study. Section 4 also provides guidance on how to critically appraise evidence from the introduction to the discussion and conclusion of an article or report.

Knowledge derived from research and experience is of little value unless it is put into practice. **Section 5** provides an overview of key elements and considerations for translating evidence into policy and practice. It provides a stepwise approach for incorporation into planning and implementation processes to increase findings translate into practice.

Importantly this strategy does not seek to replicate existing comprehensive resources, but rather aims to provide a useful summary of concepts in research and evaluation. Considering this, references to further helpful reading are provided. Additionally, **Section 6** provides a list of the Ministry of Health Population and Public Health guidance series and their website links.

Glossary of terms

Causality

The relating of causes to the effects produced. Causality assumes that the value of an interdependent variable is the reason for the value of a dependent variable. There are generally three requirements for identifying a causal effect: (1) empirical association, (2) temporal priority of the independent variable, and (3) non-spuriousness. You must establish these three to claim a causal relationship.

Critical appraisal

The process of assessing and interpreting evidence by systematically considering its validity, results, and relevance.

Data analysis (quantitative)

The process of inspecting, cleansing, transforming and modelling data.

Dependent variable

Factors or variables that are affected by one or more other factors or variables.

Evidence-informed practice

Using evidence to identify the potential benefits, harms and costs of an intervention and also acknowledging that what works in one context may not be appropriate or feasible in another.

Evidence-informed public health

A public health endeavour in which there is an informed, explicit, and judicious use of evidence that has been derived from any of a variety of science, health and social science research and evaluation methods.

External validity

The degree to which the study results hold true for a population beyond the subjects in the study or in other settings (generalisability).

Health outcomes

Changes in the health status, mortality or morbidity, for individuals or populations, that result from the provision of health (or other) services.

Incidence

The number of new events (for example, a new separate incident or occurrence of violence) in a defined population, occurring within a specified period of time (incidence rate).

Independent variable

Factors that are thought to be the cause of an outcome and can be manipulated, controlled or changed to see what impact they have on a dependent variable.

Internal validity

The degree to which the results of a study are correct for the sample of people being studied.

Prevalence

The proportion of people in a population who have some attribute or condition at a given point in time or during a specified time period — for example, in the past 12 months.

Reliability

The degree to which observations or measures can be replicated when repeated under the same conditions. Reliability is necessary but not sufficient to establish the validity of a proposition. Poor reliability can be due to variability in the observer or measurement tool, or instability in the actual phenomenon under study.

Sensitivity

The measure of the proportion of positive cases that are correctly identified — that is, true positive. It relates to a test's ability to correctly include cases with the condition of interest.

$$\text{Sensitivity} = \frac{\text{\# of true positives}}{\text{\# of true positives} + \text{\# of false negatives}}$$

Social determinants of health

The conditions in which people are born, grow, work, live, and age, and the wider set of economic, social and political forces and systems shaping the conditions of daily life that subsequently impact their health and wellbeing.

Specificity

The measure of the proportion of negative cases that are correctly identified — that is, true negatives. It relates to a test's ability to correctly reject cases without the condition of interest.

$$\text{Specificity} = \frac{\text{\# of true negatives}}{\text{\# of true negatives} + \text{\# of false positives}}$$

Validity

The extent to which the results of a study really measure what they are supposed to measure, taking into account the study design and methods, the representativeness of the study sample, and the nature of the population from which it is drawn.

Violence, abuse and neglect

An umbrella term used to describe three primary types of interpersonal violence that are widespread in the Australian community. It refers to domestic and family violence, sexual assault, and all forms of child abuse and neglect. It also refers to children and young people displaying problematic sexual behaviour or engaging in harmful sexual behaviour, who often have their own experiences as victims of abuse and neglect.

Section 1. Introduction

Section 1 of the strategy provides context and the background to why we need an evidence strategy and its alignment with other critical strategic areas and priorities for NSW Health.

1.1 Background

NSW Health is committed to strengthening its response to people and families who have experienced violence, abuse and neglect, and to children and young people engaging in problematic or harmful sexual behaviours.

“Violence, abuse and neglect” (VAN) is an umbrella term used by NSW Health to describe three types of interpersonal violence that are widespread in Australia: domestic and family violence, sexual assault, and all forms of child abuse and neglect. The term also refers to the behaviours of children and young people who engage in problematic or harmful sexual behaviours and often have their own experiences as victims of abuse.

Prevention and response to violence, abuse and neglect is the responsibility of a wide range of policy areas within the Ministry. This includes policy to support targeted programs and services for victims and survivors, mental health services, alcohol and other drug services, and child and family services.

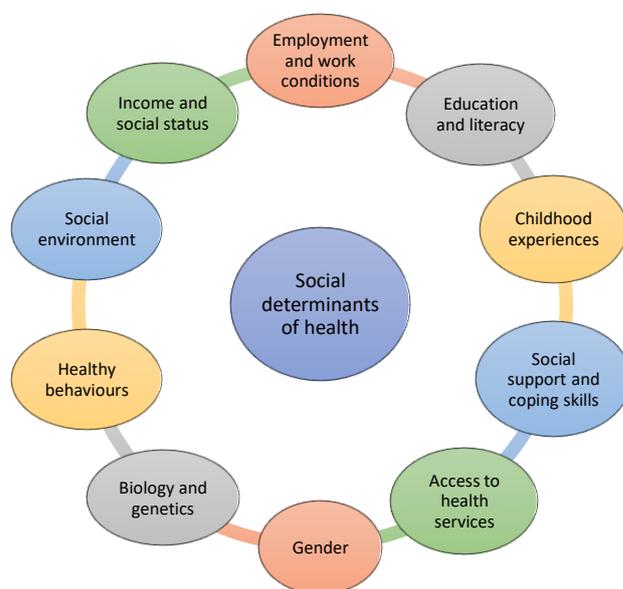
Experiences of violence, abuse and neglect have serious impacts on people’s physical and

emotional health, contributing to a range of negative health outcomes. These include physical injury, poor mental health, poor physical health, difficulties during pregnancy and birth, problems with sexual and reproductive health, alcohol and other drug misuse, self-harm, behaviours associated with risk, and death including from suicide.⁴

1.1.1 Social determinants of health

The World Health Organization⁵ describes the social determinants of health as the conditions in which people are born, grow, work, live, and age, and the wider set of economic, social and political forces and systems shaping the conditions of daily life.

FIGURE 1. Social determinants of health



⁴ NSW Ministry of Health. (2019). *The case for change: integrated prevention and response to violence, abuse and neglect in NSW Health*. North Sydney: Government Relations Branch.

⁵ World Health Organization. (2016). *Social determinants of health*. Geneva: WHO.

People and families who have experienced violence, abuse and neglect, and children and young people engaging in problematic or harmful sexual behaviours, are often likely to experience disadvantage and discrimination in a range of areas of their lives — for example in education, employment, housing and, social connection.

In its second paper on health inequalities, the National Centre for Social and Economic Modelling (NATSEM) calculated various costs of inaction on the social determinants of health.⁶ The authors conclude that socio-economic inequalities in health persist because the social determinants of health are not being addressed.

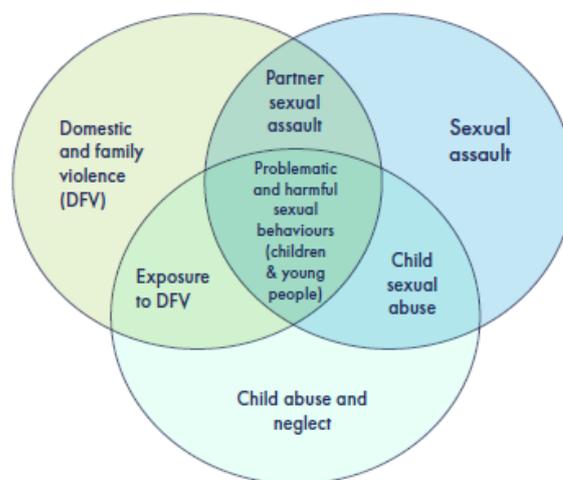
Importantly, as noted by Costello and Backhouse, 'violence, abuse and neglect are rarely experienced as a single incident. Many people experience multiple forms of violence, abuse and neglect, either co-occurring or at different stages across their life, and outcomes are cumulative'.⁷

The health sector plays a crucial role in efforts to prevent, respond to, and minimise the impacts of violence, abuse and neglect⁸ The provision of high-quality care and support services to victims of violence contribute to 'reducing trauma, helping victims heal and preventing repeat victimisation and perpetration'⁹. Further, high quality interventions with children and young people displaying problematic or engaging in harmful sexual behaviour maximise safety and reduce the risk of harm to that child or young person and others and minimises longer-term health and social impacts.

⁶ Brown, L., Thurecht, L., & Nepaet, B. (2012). *The cost of inaction on the social determinants of health, CHA-NATSEM Second Report on Health Inequalities*. Canberra: NATSEM.

⁷ Costello, M., & Backhouse, C. (2019). *Avoiding the 3 'M's: accurate use of violence, abuse and neglect statistics and research to avoid myths, mistakes and misinformation — A resource for NSW Health Workers*. North Sydney: The NSW Health Education Centre Against Violence (ECAV) and

FIGURE 2. Intersection of violence, abuse and neglect⁷



Health and other areas across the human services have developed responses as different forms of violence, abuse and neglect are 'discovered' or better understood.

Understanding the unique characteristics of, and evidence to support, approaches to service provision for sexual assault, domestic and family violence, and child abuse and neglect is essential to meeting the health and broader service needs of victims and survivors, and in helping to hold people perpetrating violence, abuse and neglect to account. For these reasons, the NSW Ministry of Health is committed to supporting high quality research and evaluation to drive innovation and improve health outcomes.

This evidence strategy is one of several resources aimed at guiding readers on how quality research and evaluation can be used and can generate evidence that addresses knowledge gaps. This is essential for improving the appropriateness and quality of care for victims of violence, abuse and neglect and to

Prevention and Response to Violence, Abuse and Neglect (PARVAN) Unit, Ministry of Health.

⁸ García-Moreno, C., Hegarty, K., Flavia Lucas d'Oliveira, A., Koziol-McLain, J., Colombini, M., & Feder, G. (2015). The health-systems response to violence against women. *The Lancet*, 385: e38-e40.

⁹ World Health Organisation (WHO). (2014). *Global status report on violence prevention 2014*. Geneva.

help services hold those perpetrating violence, abuse and neglect to account. The strategy also aligns with, and demonstrates, the efficacy of the broader changes and emerging strategic priorities evident across the whole NSW health system — including integration and innovation.

Individual public health problems — no matter how extensive their prevalence, or their perceived social impact — are multi-faceted and cannot be formulated into one research question that will provide evidence to demonstrate improved outcomes in prevention and response to violence, abuse and neglect.

For example, there is an extensive evidence base demonstrating the extent of and damaging impact of domestic and family violence. Despite acknowledgement of this evidence base by researchers, governments and community groups, and the considerable government and philanthropic funding directed at addressing this problem, as well as ongoing research — and the data that research produces — we still lack sufficient evidence on a range of policy and program interventions to demonstrate improved outcomes in victim safety, health and wellbeing, or broader impacts on the prevention and reduction of domestic and family violence.

If we want to know ‘why’ domestic violence remains a significant social issue and ‘what’ we can do to prevent it, we need to ask questions that tell us about the social, cultural, economic circumstances, and experiences of those who experience domestic violence and those who perpetrate that violence. We need to understand if and how the experience of domestic violence and our response to it differs for different groups, and, if so, what is the reason for this difference. We need to understand what research questions to ask, what research design to develop and what data collection processes (e.g. that are culturally and ethically appropriate) and tools we will need to use to ensure the data we collect is valid.

A sound evidence base means that, across NSW Health and beyond, there can be high levels of

confidence that programs, services and policies designed to assist those children, young people, adults, and their families who have experienced violence, abuse and neglect are making a positive difference to the lives of these people.

1.1.2 Consultation with Ministry staff

NSW Ministry of Health staff with violence, abuse and neglect policy responsibilities were consulted about their experiences of using and generating evidence in the context of violence, abuse and neglect. The primary aims were to gain insight into barriers experienced when using and generating evidence from their perspectives, understand the strengths and weaknesses in capacity and capability, and to generate solutions for building a strong evidence-driven workforce.

Primary challenges and barriers that staff experience included:

- knowledge about and timely access to available evidence generated internally or by partner organisations.
- greater skills are needed to generate evidence and assess research and evaluation findings
- insufficient time and resources to undertake quality research and evaluation
- understanding what data and other information is valued by decision makers and should be used in different contexts
- sensitivities around engaging with people who have experienced violence, abuse or neglect for research and evaluation
- cultural considerations and working with priority populations
- a changing political landscape
- an ad hoc approach to violence, abuse and neglect research and evaluation within NSW Health
- opportunities and support for participating in research and evaluation activities.

Suggested solutions to overcoming the challenges and barriers were:

- a strategy that enables forward planning, including budget allocations.
- stronger connection with other agencies
- better access to available evidence — for example, a repository of relevant publications and available data sources with annotated bibliographies to expedite access
- guidelines for engaging with consumers and for co-design
- tools to critically appraise the quality of literature
- building capabilities through professional development
- better use of the Ministry of Health Library
- knowledge of NSW Health’s data systems and how they can be used
- guidance on what to use and when
- the need for a communication strategy to disseminate our research and evaluation so that they are more visible
- commissioning guidelines, in particular, being clear about the purpose and planning for the audience we want to influence
- embedding evaluation in project planning
- improved research translation/implementation science, especially built into commissioned work
- strong governance around research and evaluation to ensure the right people with the right skills are included in the process.

1.2 Context and purpose of the VAN evidence strategy

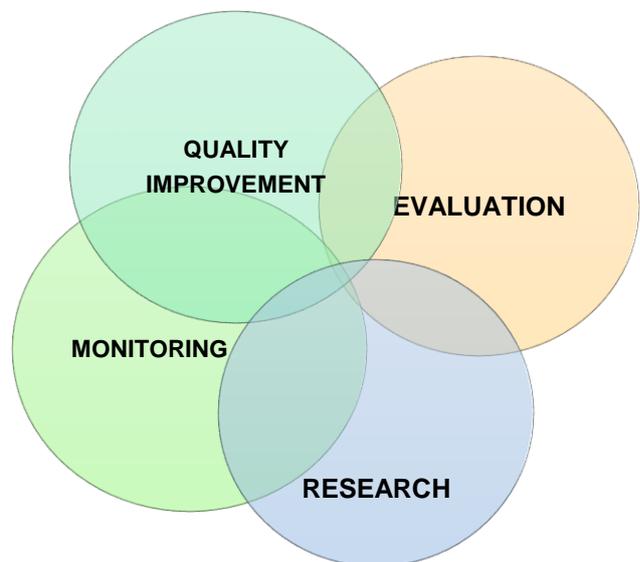
Evidence refers to the available body of facts or information indicating whether a belief or proposition is true or valid, and is generally sought and confirmed through several interrelated activities (Figure 3). There is often overlap in the aims and activities of research, evaluation, quality improvement and monitoring, particularly in social science enquiry and practice-based research that explicitly aims to change phenomena to improve outcomes.

While this VAN Evidence Strategy will focus on research and evaluation processes to generate and acquire evidence, it is worth noting the

distinction and intersects between common core activities.

Monitoring involves continuous or routine assessment of the implementation of initiatives with respect to what was planned and according to predetermined activities and outcomes. It facilitates accountability, aims to provide managers and other stakeholders with regular feedback on implementation.

FIGURE 3. Intersection between different mechanisms for collecting evidence



Quality improvement is a component of the performance management process that consists of activities to monitor, assess and improve how care is delivered and if the desired outcomes are achieved.

Research is the systematic process of inquiry and discovery to produce knowledge and understanding.

Evaluation is the systematic assessment of information about the relevance, performance, effectiveness, efficiency, and impact of, or lack thereof, of an established initiative in relation to its stated objectives and its sustainability. Evaluation is closely related to research and

complementary to monitoring. Its primary purpose is to inform and influence decision making, service delivery and policy formulation.

The VAN Evidence Strategy will support a range of NSW Health strategic priorities by improving PARVAN's ability to identify and prioritise research and evaluation on violence, abuse and build capability to generate evidence using best practice approaches. The goal is to improve the investment value of health services and achieve better health outcomes for people experiencing, or who are at risk of, violence, abuse and neglect.

Key contextual factors requiring enhanced strategic violence, abuse and neglect research and evaluation are the NSW Health Strategic Priorities and the IPARVAN Framework.

1.2.1 NSW Health key strategic priorities

NSW Premier's priorities

Outcomes relevant to violence, abuse and neglect interventions — for example, reducing recidivism and domestic violence and protecting vulnerable children.

NSW Health Outcome and Business Plan (2019–23)

- Keeping people healthy through prevention and health promotion.
- Our people and systems are continuously improving to deliver the best health outcomes and experiences.

NSW Health commitment to leading better value care

Co-designing high-impact initiatives to improve outcomes and experiences for people while ensuring that service provision is effective, efficient and sustainable.

NSW State Health Plan

Promoting collaborative research and evaluation to reduce health inequalities and improve health outcomes.

NSW Health Analytic Framework

Developing and enhancing health analytics to improve insights and decision making.

NSW Treasury's outcomes-based plans

Evidence demonstrating outcomes from research, evaluation of returns on investment, and improved service delivery and health outcomes.

NSW Health Integrated Prevention and Response to Violence, Abuse and Neglect (IPARVAN) Framework

The foundation for integration of VAN services so that all children, young people, adults and their families are supported by the public health system to live free of violence, abuse and neglect and their adverse impacts.

1.2.2 PARVAN Strategy 2021–2025

There are significant health consequences for any type of abuse, and health impacts are cumulative and can be incrementally worse for people who have experienced multiple episodes or forms of abuse. PARVAN has developed an internal four-year strategy to support the broader direction of its work.

Vision

All children, young people, adults and their families are supported by the public health system to live free of violence, abuse and neglect and their adverse impacts.

Purpose

To guide and monitor an integrated public health approach that prevents or intervenes early to minimise the impact of violence, abuse and neglect, while recognising that victims and their families often have complex needs requiring the delivery of consistent, high quality, comprehensive and integrated health services based on the best available evidence.

Strategic objectives (2020–2025)

- Integrate systems to create holistic, seamless and high-quality responses to violence, abuse and neglect for all people and families

- Support and upskill the health workforce to prevent, identify and respond to violence, abuse and neglect
- Strengthen VAN service models, clinical pathways, systems and practices
- Embed mechanisms for improving the quality and safety of responses to violence, abuse and neglect
- Strengthen governance, leadership and accountability for responding to violence, abuse and neglect

Enablers

- Evidence
- Technology
- Consumer engagement
- Learning and development

1.2.3 Benefits of the strategy

This VAN Evidence Strategy is intended to assist the PARVAN unit's work towards NSW state priorities and to achieve its vision, purpose and objectives by:

- better understanding the strength and appropriate use of different types of information sources in building a strong evidence-informed culture
- translating evidence to inform policy, program and guideline development
- supporting system-wide implementation of best practice
- identifying gaps, and prioritising and allocating resources where they are most needed.

Section 2. Identifying and supporting priorities for research and evaluation

The VAN Evidence Strategy aims to improve investment value of health services and achieve better health outcomes for people experiencing, or who are at risk of, violence, abuse and neglect.

STRATEGY AT A GLANCE

WHY do we need an evidence strategy?

We want to ensure that we use and develop robust evidence to guide policy and best practice for people at risk or who have experienced violence, abuse and neglect in NSW and to help hold people who have perpetrated violence, abuse and neglect to account. The knowledge needs and evidence priorities will continue to evolve over time in response to emerging issues. We will need to increasingly draw on new approaches and build capabilities to support and provide robust answers to practice, service delivery and policy questions. We will continue to require quality evidence across our policy and operational areas to prevent and respond to violence, abuse and neglect and minimise its impacts for clients and the health system.

WHAT will we do?

STRATEGIC AREAS	Strategic partnerships	Effective use of data and existing evidence	Sustainability	Co-ownership and co-design	Identify and prioritise evidence needs
	Develop and strengthen new and existing strategic relationships within NSW Health and with partner organisations.	Make better use of the data, information and knowledge we and others hold before commissioning new work.	Build internal research and evaluation capacity by working with internal and external partners promoting best practice in complex evaluation methodology and research.	Promote and embed principles of co-ownership and co-design in research and evaluation.	Use a systematic approach to identify and prioritise evidence needs.

HOW will we do it?

KEY ACTIVITIES					
	<ul style="list-style-type: none"> Pursue inter-agency data linkage opportunities Develop new data assets in partnership with other Ministry branches and Pillar organisations Build relationships with existing consumer reference groups 	<ul style="list-style-type: none"> Develop a local repository of evidence/ knowledge bank that is accessible to staff Routinely disseminate learnings in house and externally Build data literacy capability - Data Capability Framework (CEE) Leverage data from other agencies Develop internal guidelines on the use of NSW Health data assets 	<ul style="list-style-type: none"> Strengthen partnerships with external partners undertaking best practice research and evaluation Facilitate research and evaluation training opportunities for staff Develop mechanisms and facilitate opportunities for shared learning and critical appraisal among staff 	<ul style="list-style-type: none"> Identify, engage and respect the views, skills, diversity of partners, especially people who have lived experience of violence, abuse and neglect Use participatory research and evaluation practices Proactively remove barriers that reduce our partners' participation 	<ul style="list-style-type: none"> Develop a framework for prioritising evidence needs Work in partnership with stakeholders to identify knowledge gaps Regularly review the currency of knowledge gaps and evidence needs

The **strategy at a glance** identifies five strategic areas and key activities that will be implemented to facilitate development of robust evidence and guide the progression of policy and best practice for people at risk or who have experienced violence, abuse and neglect in NSW and for holding people perpetrating violence, abuse and neglect to account.

2.1 Strategic partnerships

Develop and strengthen new existing strategic relationships within NSW Health and with partner organisations.

The Ministry will develop new, and strengthen existing, strategic relationships within NSW Health and with partner organisations to enhance our evidence base and maximise resource efficiency for better investment. We will manage our critical capabilities and resources strategically through prioritisation, partnerships and commissioning processes.

Key action: Pursue interagency data linkage opportunities

Victims of violence, abuse and neglect are likely to have touchpoints with many service providers, such as Department of Communities and Justice, (including Housing NSW), non-government organisations, and the Department of Social Services. Strengthening these interagency linkages will build and expand the evidence base, facilitate the development of holistic and coordinated approaches in the provision of best practice services, reduce duplication, and assist in determining the most efficient use of resources. Importantly, it will enable a holistic view of the client journey and a better understanding of their needs.

Internal Ministry partners such as the Centre for Health Record Linkage (CHeReL) and the System Information and Analytics (SIA) Branch are also critical partners for building and maintaining cross-sector partnerships.

Key action: Develop and implement new data assets in partnership with other Ministry branches and pillar organisations.

We will continue to develop new data assets in partnership with other Ministry of Health branches and pillar organisations, in accordance with the NSW Health Data Governance Framework to ensure effective and consistent management of NSW Health data assets.

There are emerging data needs in the areas of workforce analytics as well as patient-reported measures across NSW Health. We will seek opportunities to provide input into data analytics requirements in these areas as part of the following existing initiatives:

Workforce analytics

The NSW Health Corporate Analytics Working Group is a statewide forum focused on identifying opportunities for improved corporate analytics to support delivery of the Framework for Analytics in NSW Health. A key deliverable of the working group is a five-year vision and roadmap for workforce and finance analytics.

Patient-reported measures

Patient-reported measures (PRMs) are a critical component of achieving the NSW Health vision for truly integrated, better value care across the state. PRMs are typically divided into two groups:

- Patient-reported outcome measures (PROMs) capture the patient's perspectives about how illness or care impacts on their health and wellbeing.
- Patient-reported experience measures (PREMs) capture a person's perception of their experience with healthcare systems or services.

Routine collection and measurement, and timely reporting, of PRMs provides significant opportunities to improve clinical practice, support our clients and drive system-wide improvements in providing trauma-informed and culturally safe responses for victim/survivors.

The NSW Health ACI-led PRM program has scaled up to implement PRMs across NSW for Leading Better Value Care and Integrated Care, and will continue to enhance the PRMs information technology platform.

We will be seeking to embed PRMs into routine practice in VAN services so that clinicians can use this data effectively in clinical practice and for quality improvement purposes.

Key action: Build relationships with existing consumer reference groups

The Ministry will ensure that survivors of violence, abuse and neglect accessing our services, and the broader community, will be at the centre of service planning, design, delivery and improvement. We will proactively strengthen our relationships with consumer reference groups and develop agreed mechanisms to engage with those from priority populations.¹⁰

We will prioritise the expertise and experience of, but not limited to:

- Aboriginal people, families and communities
- people with disabilities
- people with a mental illness
- migrants, refugees and people who are culturally and linguistically diverse (CALD)
- lesbian, gay, bisexual, transgender, queer and intersex (LGBTQI) people
- people in regional, rural and remote areas
- children and young people
- people experiencing homelessness.

We will build capacity among staff to engage and facilitate meaningful relationships with

• _____

¹⁰ 'Priority populations' refers to diverse groups for whom there is significant evidence of heightened vulnerability to violence, both in frequency and severity, and who may encounter a range of specific barriers to seeking support and securing safety, related to intersecting identity-based and situational factors, and experiences of discrimination. While a range of terminology is used by and to describe these groups, 'priority population' is consistent with the NSW and national policy landscape

consumer groups and routinely capture feedback on our partnerships.

2.2 Effective use of data and existing evidence

Make better use of the data, information and knowledge we and others hold before we commission new work.

The Ministry will make information relevant to violence, abuse and neglect more accessible for NSW Health staff, and explore ways of managing and exploiting new large data sources or combining existing data sets to answer new questions. We will invest in knowledge exchange and brokering to ensure effective interaction between evidence providers and end users.

We will also promote the use of existing clearinghouses before undertaking new research. A clearinghouse is a central resource point that collects, organises and disseminates information to people who are interested in or working in a specific field.

For example, the **Australian Institute of Family Studies (AIFS)** is the Australian Government's key research body in the area of family wellbeing, and which conducts research to increase the understanding of Australian families and the issues that affect them. AIFS (<https://aifs.gov.au/>) manages the following clearing houses:

- Communities and Families Clearinghouse Australia
- Australian Family Relationships Clearinghouse

Centre for Epidemiology and Evidence. (2018). *Population Health Research Strategy 2018–2022*. Population and Public Health Division. Sydney: NSW Ministry of Health.

Council of Australian Governments. (2011). *The National Plan to Reduce Violence against Women and their Children: Including the first three-year action plan*. Canberra, ACT: FAHCSIA.

- National Child Protection Clearinghouse
- Closing the Gap Indigenous Clearinghouse

Analysis and Policy Observatory (APO) is an open access evidence platform that makes public policy research and resources accessible and useable. <https://apo.org.au/page/browse>

Child Family Community Australia (CHCA)

Child Family Community Australia (CFCA) is AIFS’s information hub for evidence, resources and support for professionals working in the child, family and community welfare sector.

CFCA produces a range of publications. These include CFCA Papers, which offer an objective exploration of how research applies to policy and practice and are written by or in collaboration with expert researchers and service providers. CFCA Resource Sheets and Practitioner Resources are shorter papers that focus on a specific issue in depth.

Australia’s National Research Organisation for Women’s Safety (ANROWS)

ANROWS is an initiative of Australia’s National Plan to Reduce Violence against Women and their Children 2010-2022. ANROWS was established by the Commonwealth and all state and territory governments of Australia.

ANROWS produces and publishes new, innovative and relevant research on domestic, family and sexual violence through its suite of publications. The publications aim to meet the evidence needs of policymakers and practitioners as well as the broader public. As well as providing a research database and a register of current research, ANROWS provides access to papers on research to policy and practice, specific research reports, insights and special collections and state of knowledge papers.

¹¹ Centre for Epidemiology and Evidence. (2019). *Enhancing insights and decision making in the NSW Ministry of Health: Data literacy capability framework*. Sydney: NSW Ministry of Health.

<https://anrows.softlinkhosting.com.au/liberty/library/Home.do?SAMLResponse=&clientAlias=&time=&digest=&corporationAlias=anrows>

Key action: Develop a local repository of evidence that is easily accessible to staff

We will partner with experts in knowledge management to provide timely access to evidence by establishing and maintaining a repository of relevant research and evaluation — a knowledge bank. This will be supported internally with skilled researchers and evaluators who are able to provide technical support, such as critical appraisal, when needed.

Key action: Routinely disseminate learnings in-house and externally

We will seek opportunities to share and communicate the learnings from research and evaluation in a way that it is easily accessible to internal and external stakeholder. Mechanisms may include one-page summaries using in house pro formas for consistency, presentations to relevant in-house staff and partners, or through professional knowledge-sharing events such as conferences. This process should also facilitate feedback, further contribute to learnings and inform internal staff and partner staff’s approach to future research, evaluation or knowledge translation and exchange.

Key action: Build data literacy capability

The Ministry of Health will improve access to and use of data for staff by building data literacy capability so that we are better able to contextualise, critically appraise, and communicate insights from data and information to drive decision-making.¹¹

To make evidence-informed decisions using data, a number of factors need to be considered:

http://analyticsassist.health.nsw.gov.au/_layouts/15/WopiFrame.aspx?sourcedoc=/Documents/Data%20Literacy%20Capability%20Framework%202020.pdf&action=default

- What data and evidence are already available, who has it, where is it, and is it the right information?
- How do I get the data I need if it's not already available?
- How do I interpret data when I get it?
- How do I communicate data and insights in a way that is appropriate for the context?

We will facilitate engagement and promote opportunities for staff to build their capabilities across the five domains outlined in the data literacy capability framework.¹²

Key action: Leverage existing data from other agencies

The NSW Government has made significant investments in state-significant data assets. This investment has been coupled with an increased focus on using data to drive consumer-centric policy design and operational decision-making that cuts across agencies.

The Stronger Communities Data Partnership is the core governance group responsible for driving greater use of human services data assets and actuarial analysis by all NSW Government agencies, service providers and researchers, including the NSW Human Services Dataset, which includes 27 years of data from more than 60 frontline data sets in 11 government agencies currently.

We will continue to seek opportunities to leverage the use of data from other agencies as appropriate for specific research and evaluation needs. We will work in partnership with the Centre for Health Record Linkage to identify when data linkage may be available and appropriate to use, data linkage requirements, and whether these can be met through existing linked data sets or require purpose specific linkages for individual projects.

• _____

¹² <http://analyticsassist.health.nsw.gov.au/layouts/15/WopiF>

Key action: Develop internal guidelines on the use of NSW Health data assets

Existing NSW Health data assets that are of particular relevance for people experiencing violence, abuse and neglect, where there are often touch points with the health system include:

- Emergency Department Data Collection
- Admitted Patient Data Collection
- Non-Admitted Patient Data Collection
- Community Mental Health Ambulatory Data Collection
- Mental Health Outcome Assessment Tools Data Collection
- Drug and Alcohol Treatment Services Data Collection
- Perinatal Data Collection.

These data assets are governed under varying custodianship arrangements within NSW Health. We will develop internal guidelines on acquisition of and use of these data assets, including processes for disclosure of unit record data and aggregated data in accordance with the Data Collections — Disclosure of Unit Record Data for Research or Management of Health Services NSW Health Policy Directive.

2.3 Sustainability

Build internal research and evaluation capacity by working in partnership with internal and external partners promoting best practice in complex evaluation methodology.

Research and evaluation capability are integral to the policy and service development and review cycle, as well as for understanding therapeutic benefits for our target populations. However, the complex nature of some policies and the contexts in which they are implemented can make policy decisions — as well as determining whether initiatives are having the intended impact — particularly difficult.

[ame.aspx?sourcedoc=/Documents/Data%20Literacy%20Capability%20Framework%202020.pdf&action=default](http://analyticsassist.health.nsw.gov.au/Document/Document.aspx?sourcedoc=/Documents/Data%20Literacy%20Capability%20Framework%202020.pdf&action=default)

Key action: Strengthen partnerships with external partners undertaking best practice research and evaluation

Partnerships have the capacity to bring new and innovative approaches to evidence-informed practice. The Ministry will work in partnership with internal and external experts in the field of research and evaluation to help build internal capability and capacity, while continuing to identify and promote best practice in research and complex evaluation methodology.

Key action: Facilitate research and evaluation training opportunities for staff

We will facilitate training and education opportunities to build the research and evaluation capacity of our staff. By undertaking a detailed needs assessment among current staff, we will gain a better understanding of knowledge and skill gaps to inform a core program of capability building opportunities.

We will work with the Centre for Epidemiology and Evidence to determine the best approach for delivering core training and development modules and facilitating ongoing professional development for our staff.

Key action: Develop mechanisms and facilitate opportunities for shared learning and critical appraisal among staff

The Ministry will work with staff to determine the best course of action that will enable staff to share learnings and enhance their critical appraisal skills. This may include formal professional development activities, peer learning, knowledge exchange activities such as internal journal clubs and interagency knowledge exchange opportunities.

2.4 Co-ownership and co-design

Promote and embed principles of co-ownership and co-design in research and evaluation.

Co-design and co-ownership in healthcare involves an equal partnership between individuals who work within the system, individuals who have lived experience, and other internal and external stakeholders. Co-ownership extends throughout the project, and the ongoing commitment of the equal partnership is inherent in the initial co-design process.

Key action: Identify, engage and respect the views, skills and diversity of partners, especially people who have lived experience of violence, abuse and neglect

The Ministry will promote co-design and co-ownership of evidence activities by working with people who have lived experience and partner organisations across the whole research community and with external experts on shared agendas, leveraging additional investment and developing smarter ways of working.

We will adhere to and embed the following co-design and co-ownership principles in our work:

- power sharing that is connected to decision-making
- diversity
- accessibility
- reciprocity
- transparency
- flexibility.

Key action: Use participatory research and evaluation practices

The Ministry is committed to the use of participatory research and evaluation practices in the areas of both service design, and service and program evaluation. The strength of participatory approaches lies within their focus on generating solutions to practical problems and their ability to empower practitioners by allowing them to engage with and be an active

participant in the research (or evaluation) and the subsequent development of new practice.

This is essential when considering evaluation and research in the violence, abuse and neglect space. Therefore, we will develop and capture knowledge through participatory action, reflection, and practice, while simultaneously producing knowledge.

Key action: Proactively remove barriers that reduce our partners' participation

Genuine intersectoral and cross sector partnerships are key to advancing our common goals. We will actively approach and engage partner organisations to encourage participation in policy decisions, planning, service delivery and review processes. We will be flexible and adaptable and facilitate participation opportunities when and where convenient for our partners.

2.5 Identify and prioritise evidence needs

Use a systematic approach to identify and prioritise evidence needs.

Research prioritisation is one of the key nodal points in the research policy planning cycle, which encompasses research planning; research priority setting; strategies and implementation of research priorities; research use; monitoring and evaluation; and overall policy management.

Criteria will be used to support decision-making and investment by helping us to prioritise need and decide where to invest in evidence, where it is for others to fund, or where we need to work in partnership.

Key action: Work in partnership with stakeholders to identify knowledge gaps

Measuring the 'gap' between evidence and policy or practice is one of the first steps in knowledge translation. Analyses of gaps and assessment of need will be undertaken using rigorous methods and engaging relevant stakeholders.

Key action: Regularly review the currency of knowledge gaps and evidence needs

The Ministry of Health will identify current evidence needs and consult with internal and external partner organisations to determine where there are knowledge gaps relevant to VAN policy, practice and service delivery.

We will develop and maintain a log of key research questions and review these questions regularly against identified knowledge gaps with stakeholders, including interagency partners.

Key action: Develop a framework for prioritising evidence needs

In public health, prioritising evidence needs is challenging and inherently political, as it is a process where important societal values and goals may differ and involves compromises among stakeholders.¹³

Therefore, priority-setting processes should be guided by ethical principles, including careful attention to conflicts of interest. Key principles for priority setting include:

- explicit and transparent documentation of proposals
- flexibility
- adaptability to dynamic advances accountability.

¹³ World Health Organization. (2016) *Priority-setting for National Health Policies, Strategies and Plans*. Geneva: WHO.

There are many different approaches to identifying the criteria that need to be considered in developing a prioritisation framework.¹⁴ The following criteria will be used as a guide:

Background criteria: acceptance of the need to prioritise; leadership; incentive for change.

Essential criteria: opportunity cost; values; resource efficiency (based on the best practice models that deliver best health outcomes); agreed principles (e.g. such as fairness/equity or desired outcomes such as maximisation of objectives); having the capacity to be understood by other health areas (e.g. internal partners, including decision-makers); burden of the health issue; effectiveness of the intervention; cost of the intervention; acceptability of the intervention; and fairness.¹⁵

¹⁴ See for example: Andrews, J. (2013). *Prioritization Criteria Methodology for Future Research Needs Proposals*. Agency for Healthcare Research and Quality, U.S. Department of Health and Human Services. Rockville.

¹⁵ WHO's five essential criteria are: burden of the health issue; effectiveness of the intervention; cost of the intervention; acceptability of the intervention; fairness.

Section 3. Key concepts in research design and methods

This section aims to provide an understanding of key concepts in research and evaluation that underpin implementation of this strategy. It also provides an overview of the steps needed to undertake a study, from formulating a clear research question to communicating the findings in order to influence audiences.

3.1 Similarities and differences between research and evaluation

Both research and evaluation are fundamental to the work undertaken for improving health outcomes for people who experience violence, abuse and neglect, and both have a common purpose — that is, to investigate something we want to know more about. The ways of knowing are essentially the same, so research and evaluation share the same methods and techniques.

...Research and evaluation are not mutually exclusive binary oppositions, nor, in reality, are there differences between them. Their boundaries are permeable, similarities are often greater than differences and there is often overlap; indeed, evaluative research and applied research often bring the two together.¹⁶

Throughout this document, research and evaluation are not treated as separate entities, although it is recognised there are differences between both activities and each one can be conceptualised from different perspectives. An

overview of the key similarities and differences is provided in Table 1.

3.2 Planning and undertaking a study

Public health research is the investigation and analysis of factors that influence the health status of population groups, or a whole population, as well as the testing and evaluation of policies and interventions to improve population health outcomes. It includes research for problem definition, solution generation, and evaluation. It includes primary data collection and analysis, analysis of existing data, and systematic reviews of existing research, as well as a range of methodologies: quantitative, qualitative, and mixed methods. It does not include clinical research or health services research, although there is an interface between population health research and health services research.

Carefully planning the study and implementing it in accordance with that plan is important if the study is to achieve its desired outcomes. A summary of the key steps involved in planning and implementing a study are shown in Figure 4.

3.2.1 Identify the research focus area

The first step in any research or evaluation is to be clear about the area that will be the subject of the study. It is helpful here to think about the 'purpose' of the study and to ask, 'why this topic or focus area?'

¹⁶ Cohen, L., Manion, L., & Morrison, K. (2018). Chapter 5 – "Evaluation and research". In Cohen, L.,

Manion, L. & Morrison, K. (eds), *Research Methods in Education* (Abingdon, Routledge, 8th ed), p. 81.

TABLE 1. Comparison of research and evaluation¹⁷

	<i>Evaluation</i>	<i>Research</i>
Aim	Systematic investigation to provide answers	
Purpose	<ul style="list-style-type: none"> • Concerned with how <u>well</u> something works. Designed to use the information/facts to judge the worth, merit, value, efficacy, impact and effectiveness of something and its sustainability — i.e. 'what is valuable' • Promotes accountability and learning • Can inform planning, programming, budgeting, implementation, and evidence-informed policymaking 	<ul style="list-style-type: none"> • Concerned with how something works • Conducted to gain, expand and extend knowledge; to generate theory, 'discover' and predict what will happen
Method and techniques of investigation	Shared research methods and techniques	
Participants	Involved in, or related to the activity, program, service, etc. under investigation	Can be anyone who satisfies inclusion criteria
Audience for communication of findings	<ul style="list-style-type: none"> • Local: organisation, community, governing or funding body (primary audience) • Professional community (often) • Scholarly community (sometimes) 	<ul style="list-style-type: none"> • Local as the first step in reporting • Professional community (often) • Scholarly community (primary audience)

Our purpose is to:

strengthen NSW's integrated system response to the public health emergency of violence, abuse and neglect, by making the issues visible, holding the system accountable, and equipping all health staff to better prevent and respond based on the best available evidence.

This allows *wide scope* for identifying different research areas, but it also *defines* the key

research areas — that is, public health, violence, abuse and neglect. For example, these potential study focus areas all align within the Ministry's remit:

- domestic violence against Aboriginal women
- contact with the criminal justice system among young people who have been in out-of-home care
- upskilling the health workforce to respond to violence, abuse and neglect
- development of policy guidelines for working with young children experiencing violence, abuse or neglect
- outcomes evaluation of a specific intervention.

¹⁷ United Nations Evaluation Group. (2016). *Norms and Standards for Evaluation*. New York: UNEG.

3.2.2 Develop the research question(s)

The selection of the research topic is the first step in a research study. However, developing a good research question is the most critical step. The research question clarifies and delineates the research focus area or topic and will influence and impact on all aspects of the study: the study design (e.g. descriptive, analytical) and the methods used for gathering and analysing the data (e.g. qualitative, quantitative, mixed methods).

Given its significance to the study, it is worth spending the time to develop a good, clear researchable question. For example, if the study topic is about Aboriginal women and domestic and family violence, the research question will need to clarify exactly what the focus area will be — that is, what it is that the study is trying to find out or understand about this topic by asking particular questions. Consider whether the study is intended to:

- test a theory or an assumption?
- describe rates or prevalence of domestic and family violence for this cohort? For all of this cohort, for woman in a specific age group or in

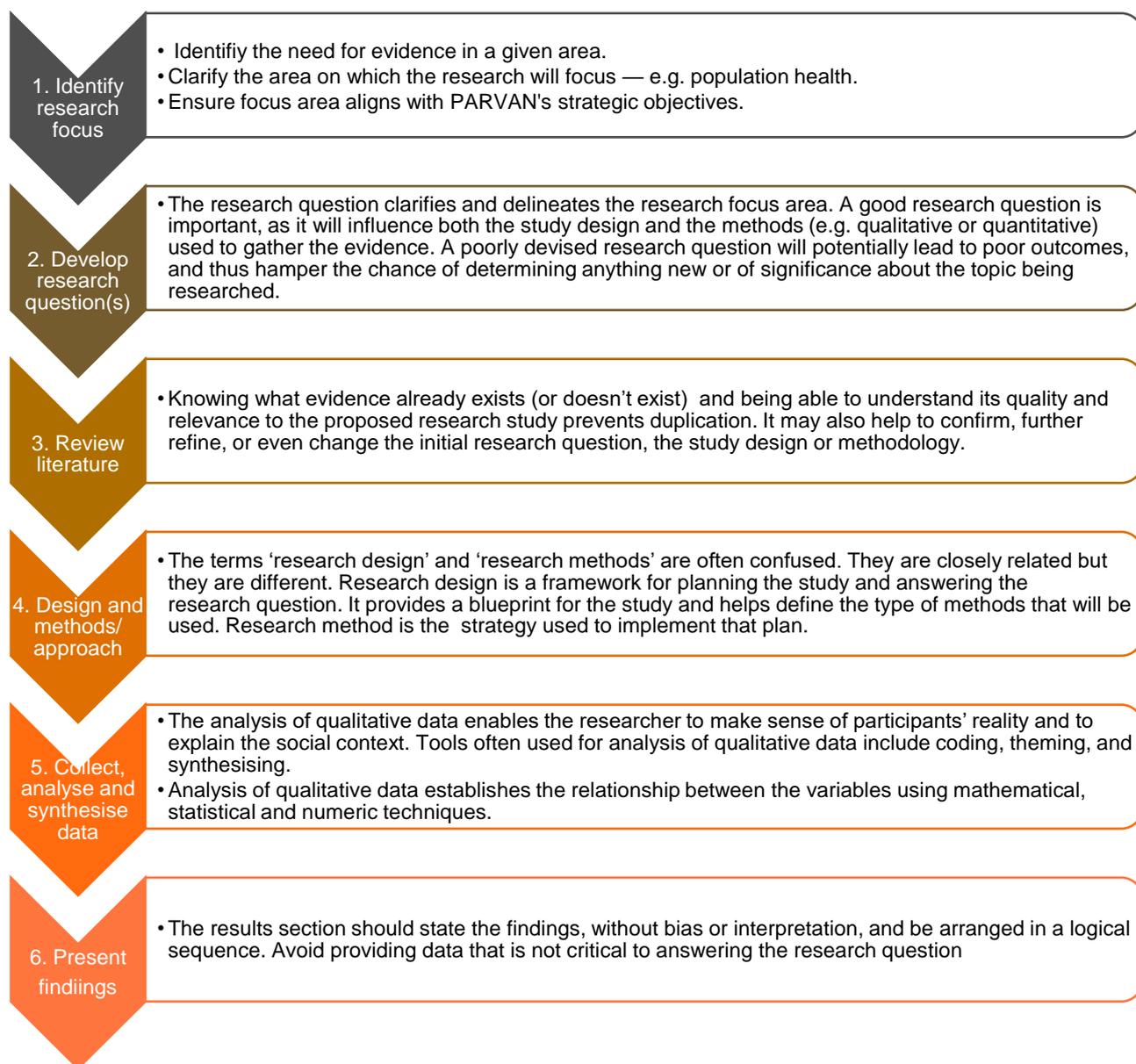
a specific location (urban/remote)?

- understand this cohort compared with another cohort of non-Aboriginal women?
- understand more about service use for this cohort?
- determine any differences in outcomes for this cohort compared with another cohort for a specific intervention?

Key considerations when developing research questions are to ask whether the questions will:

- be testable with available tools (or else the question itself *is* a new tool)?
- be novel in that nobody else has asked the question of this specific population before (or at least has not asked it using the tools you have at your disposal)?
- rely upon several different tools to answer the same question?
- be based on previous fundamental evidence?
- be impactful (to more than just a small subset of people) regardless of the outcome?
- result in the creation of new evidence or confirmation of already established evidence?
- involve any ethical issues?

FIGURE 4. Summary of steps involved in planning and undertaking a public health study¹⁸



¹⁸ Program logic has not been included here. Although in practice a program logic is undertaken during the development of an evaluation (before step one), in theory it should be undertaken as part of program planning. Information on developing program logics and other evaluation specific tools can be found in Section 6.

Another commonly used format for formulating research questions is PICOT (Table 2).

TABLE 2. PICOT framework: population, intervention, comparator, outcome, timeframe, setting

• PICOT	• Example
<ul style="list-style-type: none"> • P: Who are the clients of interest? Think about age, sex, geographical location or specific characteristics that would be important to your question. 	<ul style="list-style-type: none"> • Children and young people aged 10–17 years with harmful sexual behaviours (confirmed by Department of Communities and Justice or the young person)
<ul style="list-style-type: none"> • I: What is the intervention — e.g. case management strategy, service provision or exposure of interest? 	<ul style="list-style-type: none"> • Service received from New Street Service
<ul style="list-style-type: none"> • C: Is there a control or alternative management strategy you would like to compare to the intervention? 	<ul style="list-style-type: none"> • Children and young people aged 10–17 years with harmful sexual behaviours who are eligible for New Street services but who were not referred or did not receive a service
<ul style="list-style-type: none"> • O: What are the client-relevant consequences of the intervention? 	<ul style="list-style-type: none"> • Safety, restitution, wellbeing and preventing recidivism among young people with harmful sexual behaviours
<ul style="list-style-type: none"> • T: What time periods should be considered? 	<ul style="list-style-type: none"> • Two to five years
<p>Research question</p> <p>For children and young people aged 10–17 years with harmful sexual behaviours, what is the effectiveness of receiving a service from a New Street program compared to alternative service models or no service for the young person’s safety, restitution, wellbeing, and likelihood to engage in harming behaviours?</p>	

3.2.3 Review the literature

Reviewing existing evidence is a critical step in forming a question and ensuring that effort is not duplicated. There are differing views about whether it is better to undertake a literature review *before* or *after* the research question has been identified and confirmed. If the study topic is clear and the research question has already been formulated, the literature review may be the third step, not the second. However, it is important to remember a thorough and robust literature review may help to confirm, further refine, or even change the initial research question, the study design or the methods.

Whether it is the second or the third step in developing the study, a thorough literature review should be undertaken before the study design is confirmed. See Section 4.4, Critical appraisal of the evidence, on how to assess the quality of the studies reviewed.

It is critical to know whether there is already existing information on the topic, or the research question and the type of study design the researcher is interested in undertaking — or if similar quality research has *already* been undertaken. However, there may be other reasons why a researcher should or might want to undertake a literature review before committing to the study (Figure 5).

By continually refining and narrowing down the study topic and its focus, a clearly defined research question will ultimately emerge, and the next steps in the planning and implementation of the study will become clear.

FIGURE 5. Reasons for undertaking a review of the literature



3.2.4 Design the study and select methods or approach

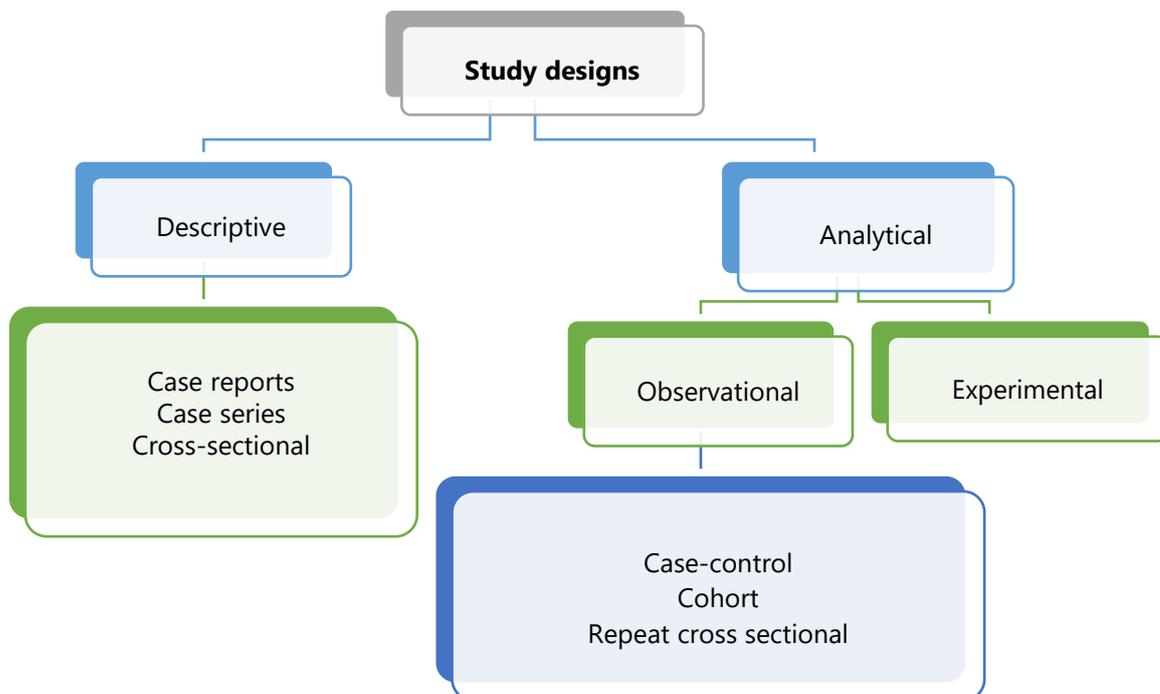
The function of a study design is to ensure that the evidence obtained enables the researcher to effectively address the research problem as unambiguously as possible. In public and population health research, obtaining evidence relevant to the research problem generally entails specifying the type of evidence needed to test a theory, to evaluate a program, or to accurately describe a phenomenon.

Study design is not related to any specific method of collecting data or any particular type of data. Any study design can (in principle) use any type of data collection method — either quantitative or qualitative data. How the data are collected is irrelevant to the logic of the design.

Study design

Study designs are generally grouped into two broad fundamental types (Figure 6).

FIGURE 6. Key study design



Descriptive studies do not try to quantify the relationship but provide a picture of what is happening in a population — for example, the prevalence, incidence, or experience of a group or population. Descriptive studies include *case reports, case-series, qualitative studies and cross-sectional studies*.

Analytical studies attempt to quantify the relationship between two factors — that is, the *effect of an* intervention (I) or exposure (E) on an outcome (O). To quantify the effect the researcher needs to know the rate of outcomes in a comparison (C) group as well as the I-group or E-group. Whether the researcher actively changes a factor, or uses an intervention, determines whether the study is considered to be observational (passive involvement of researcher) or experimental (active involvement of researcher). Analytical designs may be observational or experimental.

Experimental/quasi-experimental studies are those where researchers introduce an intervention (e.g. a therapeutic intervention) and study the effects. Experimental studies are usually randomised, meaning the subjects are grouped by chance and the researcher controls the environment — for example, randomised control trials. In quasi-experimental studies, subjects are not randomised, so statistical analysis is used to try to control for potential differences between groups.

Observational studies are ones where researchers observe the effect of a risk factor, treatment or other intervention without trying to change who is or isn't exposed to it. Cohort studies, case-control studies and cross-sectional studies are examples of descriptive observational studies.

More detail about specific study designs is provided in Section 4.2.



Study methods and approach

Selecting the appropriate method or methods for the collection and analysis of data is critical to the success of any study but is particularly important in public health. Public health is a multidisciplinary and multi-method endeavour. Health problems straddle sectors (e.g. urban planning, housing and health services) and contexts (e.g. home environment and the workplace or school). For example, studies aimed at gaining greater insight into how to reduce rates of domestic violence will possibly include a range of factors such as socio-economic status, housing, status of gender relations, health services etc.

Public health problems are also multifaceted and are rarely able to be formulated into simple questions about a straightforward cause-and-effect relationship. Instead, public health problems tend to be multidimensional with many possible causes and solutions.

The choice of appropriate data collection methods should be based on the research questions, design, sample, and the possible data sources. The technique used for data collection should gather information that will allow the research questions to be answered, consider the characteristics of the sample, and provide information that is linked to each intended learning outcome. The research question — that is, what is it that the researcher wants to

know — will determine whether the research design and methodology will be quantitative, qualitative or mixed methods.

If the purpose of the research is to take 'deep dives' to understand and measure the complex, subjective experiences, feelings, and meanings of research participants about a particular phenomenon — for example, domestic and family violence — qualitative research will be most suitable. This enables the researcher to use an approach and data collection methods that are best suited to answering both the purpose of the research and the related research question.

It is important that the methods selected to collect the data required to answer the research question are both valid — that they are accurate measures — and reliable — that the research instrument consistently has the same results if it is used in the same situation on repeated occasions. See Table 3 for a summary comparison of qualitative and quantitative methods.

There are different **approaches used in qualitative studies**. An overview of some of the most commonly used approaches is shown below.

Ethnography

In ethnography, the researcher is immersed in the participants' environment in order to understand the goals, cultures, challenges, motivations, and themes that emerge. Ethnography has its roots in cultural anthropology, where researchers immerse themselves within a culture — often for years!

Rather than relying on interviews or surveys, the researcher experiences the environment firsthand, and sometimes as a 'participant observer'. However, the short time frame for a focus assessment study (three to four months) is insufficient for a full-scale ethnographic study to be carried out.

Phenomenology

Phenomenological methods are used when the researcher aims to understand and trace out precisely the lived experiences of people & generate theories or models of the phenomena being studied.

Findings are allowed to emerge rather than being imposed by an investigator. In using this approach, careful attention needs to be paid to keep descriptions as faithful as possible to the experiential raw data and to be mindful not to delete from, add to, change, or distort anything originally present in the initial 'meaning units' of the participant transcripts. The researcher attempts to 'bracket' presuppositions and biases to hold them in consciousness through all phases of the research and minimise their influence on the findings.

Grounded theory

One of the defining characteristics of grounded theory is that it aims to generate theory that is grounded in the data. In this way, grounded theory represents both a method of inquiry and a resultant product of that inquiry. Grounded theory uses inductive reasoning, and systematic modes, procedures or tools are used for collection and analysis of data. After the researcher identifies the study topic and research question, a small handful of people to interview based on a set of criteria (purposeful sampling) are identified.

This cohort is interviewed, and the interview data analysed. Based on the results of this initial round of data analysis, the researcher will identify more people to interview. These might be people who confirm what the researcher has already found, but the researcher will also purposefully look for participants who may disconfirm the previous findings. Interviews will be conducted with those newly selected participants and the researcher will analyse them. Theoretical sampling continues in this way, moving back and forth between sampling, data collection, and analysis, until the data is saturated, or the point is reached at which the

researcher fails to collect new information with subsequent interviews.

Action research

Action research seeks to simultaneously produce knowledge and to implement change through continuous cyclical processes of planning, acting, systematic observation, and reflection. The purpose of undertaking action research is to bring about change or

development in specific contexts. The strength of the approach lies in its focus on generating solutions to practical problems and its ability to empower practitioners, communities, and individuals to be active participants in both the research process and the subsequent development of new practices, services, and policies. An action research approach will draw on a range of qualitative and quantitative data collection methods throughout the process.

TABLE 3. Comparison of key qualitative and quantitative approaches¹⁹

	Qualitative	Quantitative
General framework	<ul style="list-style-type: none"> • Inductive: seeks to make sense of or interpret phenomena • Assumes a dynamic and negotiated reality 	<ul style="list-style-type: none"> • Deductive: seeks to test theory about phenomena using objective empirical investigation • Assumes a fixed and measurable reality
Analytical objectives	<ul style="list-style-type: none"> • To describe variation • To describe and explain relationships • To describe individual experiences • To describe group norms 	<ul style="list-style-type: none"> • To quantify variation • To predict causal relationships • To describe characteristics of a population
Question format	Open-ended	Closed-ended
Data format	<ul style="list-style-type: none"> • Textual (obtained from audiotapes, videotapes, field notes and observations) 	<ul style="list-style-type: none"> • Numerical (obtained by assigning numerical values to responses)
Flexibility in study design	<ul style="list-style-type: none"> • Some aspects of the study are flexible (e.g. the addition, exclusion, or wording of particular interview questions, who is in the sample) • Participant responses affect how, and which questions researchers ask next • Study design is iterative — that is, data collection and research questions are adjusted according to what is learned 	<ul style="list-style-type: none"> • Study design is stable from beginning to end • Participant responses do not influence or determine how, and which questions researchers ask next (with the exception of pre-determined skip questions) • Study design is subject to statistical assumptions and conditions

¹⁹ Family Health International. Mack, N. (2005). *Qualitative Research Methods: A Data Collector's Field Guide*. Family Health International. USA.

Qualitative methods, such as interviews (formal and informal), focus groups and yarning are able to do ‘deep dives’ to measure the complex, subjective experiences, feelings, and meanings of research participants. These methods are usually used with smaller cohorts, as they require considerable time, effort and cost. They provide depth and insight and are considered to have high levels of *validity*. However, they will have lower levels of generalisability, as they will be unlikely to be accurately reproduced on repeated occasions. While there are many qualitative techniques that can be used, the three most common methods are participant observation, in-depth interviews, and focus groups (Figure 7).

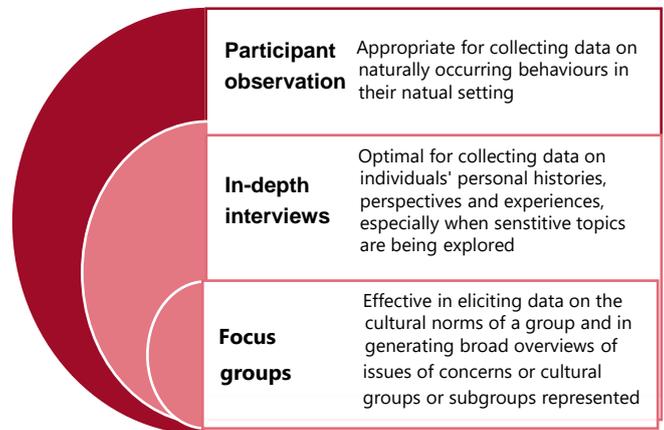
If the study is focused on exploring experiences, meanings and understandings, the research question will often begin with ‘how’, ‘what’ or ‘when’. This suggests that qualitative methodology will be best suited for collecting and analysing the data.

If the research project is focused on the relationship (descriptive, correlational, causal) between two or more variables (independent and dependent) for the target population, or if the focus is on testing a theory or hypothesis, the research question will generally begin with ‘what’, ‘how many’ or ‘how often’. This suggests that quantitative methods will be best suited for collecting and analysing the data

Quantitative methods focus on gathering numerical data and generalising it across groups of people or to explain a particular phenomenon. For example, collecting data by survey can provide consistent information from a large cohort, such as through the Australian Bureau of Statistics’ census, but is less likely to provide that information in depth. Quantitative surveys (using

rating scales and closed ended questions) and polls, etc. are considered to have *high levels of reliability* but *lower levels of validity*.

FIGURE 7. Common qualitative data collection methods²⁰



Another common method for acquiring quantitative data is the use of administrative data sets such as:

- NSW Non-Admitted Patient Data Collection
- NSW Admitted Patient Data Collection
- NSW Emergency Department Data Collection
- NSW Mental Health Ambulatory Data Collection.

<http://internal.health.nsw.gov.au/data/collections/index.html>

NSW Health also has a statewide health data and analytics portal available to all staff.

<http://analyticsassist.health.nsw.gov.au/Pages/default.aspx>

Other selected data collections are:

- Bureau of Crime Statistics and Research
<https://www.bocsar.nsw.gov.au/>
- Bureau of Health Information
http://www.bhi.nsw.gov.au/Healthcare_Observer/nocache

²⁰ Family Health International. Mack, N. (2005). *Qualitative Research Methods: A Data Collector’s Field Guide*. Family Health International. USA.

- Australian Bureau of Statistics (data cubes can be downloaded in Excel) <https://www.abs.gov.au/browse?opendocument&ref=topBar>

See Costello and Backhouse (2019, p. 18)²¹ for other potential data sources relevant to violence, abuse and neglect.

Mixed methods are increasingly used in evidence informed health research. Combining qualitative and quantitative methods allows for better *triangulation* of both quantitative and qualitative findings, which can strengthen confidence in the findings and provide a deeper understanding of unique contexts.

Using qualitative methods to measure a small representative sample of participants' rich, subjective insights on complex realities, with the whole cohort (or a much larger sample) using standardised, generalisable data generated through quantitative methods such as surveys or polls allows the respective strengths and weaknesses of each approach (i.e. high and low levels of reliability and validity) to complement each other.

Mixed methods can also be used in longitudinal studies, such as program evaluations where data is collected at the commencement of a program (baseline data) and during the implementation (process evaluation data), and to measure the effectiveness of the intervention (outcome evaluation).

3.2.5 Collect, analyse and synthesise the data

Qualitative data

The analysis of qualitative data will be influenced by the study design (i.e. descriptive/analytical) and by the data collection methods (i.e. yarning,

focus groups, interviews, surveys, polls, etc.). Following the transcription of the data, tools often used for analysis of qualitative data include coding, theming and synthesising.

Coding involves identifying topics, issues, similarities and differences that are revealed through the participants' narratives and interpreted by the researcher.

Theming is the process of drawing together codes from one or more transcripts — for example, interviews, yarning or surveying — to identify key themes present in the data. Both coding and theming can be very time consuming, but there is a range of software programs that can be used to save time for large qualitative and mixed method data analysis, such as NVivo, Qualtrics, MAXQDA. However, a substantial amount of time is still needed to first code the data.

Synthesising is the final step in the data analysis and involves drawing together all of the analysed data. This may be data from mixed methods used in one study or data from several studies. The purpose of the synthesis is to draw conclusions about the collective meaning of the research, or to propose a new theory or idea.

Quantitative data

Quantitative data is used to quantify the problem by generating numerical data. The study design may be descriptive, experimental, or quasi-experimental (establishing a causal relationship between the variables). This decision will influence the size of the population sample needed, how the data are collected and what techniques will be used to analyse the data.

Common statistical techniques used in the analysis of quantitative data include the following.

²¹ Costello, M., & Backhouse, C. (2019). *Avoiding the 3 'M's: accurate use of violence, abuse and neglect statistics and research to avoid myths, mistakes and misinformation — A resource for NSW Health Workers*. North Sydney: Education

Centre Against Violence (ECAV) and Prevention and Response to Violence, Abuse and Neglect (PARVAN) Unit (Ministry of Health), NSW Health.

Univariate analyses, where statistical analysis is used to examine the properties of *one variable*, are described as:

- frequency distribution: provides a summary of the frequency or percentages of individual values or ranges of values for that variable (how many times did x or y occur?)
- central tendency: an estimate of the centre of a distribution of values. There are three major estimates of central tendency: mean, median, and mode. This should be examined as a first step to determine what type of statistical analyses can be applied.

Dispersion is the distribution or spread from the 'average' of a set of data. The most commonly used statistical techniques are the range and standard deviation.

Bivariate analysis examines *how two variables* are related to each other. The most commonly bivariate statistic is the bivariate correlation. This measures the strength of the relationship between the two variables, but does not explain causality — for example, the relationship between age and self-esteem.

Multivariate analysis is an expansion of bivariate data analysis. It is a set of statistical models that examine patterns in *multidimensional data* by considering, at once, several data variables.

The most common statistical analysis employed when undertaking multivariate analysis is regression analysis. Because multivariate models consider more variables, they can examine more complex phenomena and find data patterns that more accurately represent the real world.

3.2.6 Present the findings in a report

The goal of research and evaluation is not just to discover something but to communicate that discovery to a broad or targeted audience. This may include other public health officials or researchers, other government departments or agencies, political or government officials, the

general public, or other team members. The reporting of the findings needs to demonstrate a clear and sound process from the initial selection of the topic to the measurement and presentation of the findings.

There is a range of different ways to communicate research and evaluation findings to support implementation and uptake of new evidence. Section 5 provides an overview of knowledge translation and exchange (KTE) principles and approaches. Typically, presenting research and evaluation in a report will be necessary to document the research and evaluation process, context, findings and analysis, which may underpin other communication and dissemination strategies.

Reporting on qualitative and quantitative methods will often differ in presentation due to the different characteristics of the data sources and approaches to interpretation and analysis. For example, in quantitative research and evaluation, tables and graphical representation of data, figures and statistical analysis will be important to provide readers with clear and accessible information. In qualitative research and evaluation, findings are often best represented by themes that are identified through data analysis. Interpretation of qualitative data — such as interview and focus group transcripts — is generally presented alongside the data itself in thematic report sections that use a 'tell, show, tell' format of analysis and direct quotes, or excerpts from the qualitative information collected.

NSW Health promotes a public health approach to the prevention and response to violence, abuse and neglect, which means that the data on prevalence, impacts, service interventions and so on must be understood and interpreted with recognition of the social and ecological context in which the data is collected and intended for use. This means, for example, that reports on VAN research and evaluation that has used quantitative methods will typically include a mix of qualitative contextual evidence (e.g. from literature review) and empirical data and analysis.

A clear and accessible report structure is critical to ensuring that research and evaluation processes, findings, analyses and recommendations can be communicated effectively to target audiences. This is particularly the case for presenting qualitative information and discussion. It can be useful to think of the contents table as a story board that outlines the narrative you want to communicate. The reader should be able to look at the table of contents in the report and identify what the purpose, context, key themes and messages will be.

In reporting on the findings, it is important to continue to return to the research questions and to demonstrate clearly that the study design, methods and data analyses were appropriate to investigate the research questions and that the findings reflect this.

A key consideration for structuring your report is the intended audience and the purpose of the research and evaluation. For research and evaluation on prevention and response to VAN policy and service development, target audiences may include:

- NSW Government ministers, Treasury and senior executives (e.g. to support cabinet submissions and budget bids)
- NSW Health senior executives and branch partners (e.g. to support program, policy and service design, collaboration, development and implementation)
- NSW Health VAN service clinicians, management and local health district executives (e.g. to support clinical policy and procedures for the health sector, including generalist and specialist health services)
- internal Ministry of Health staff (e.g. to inform policy updates, project and program design, and systemic advocacy)
- external partner agencies (e.g. Department of Communities and Justice)

Understanding and identifying your target audience will shape the language, tone and style of your report. Useful questions to consider include:

- What level of public health and VAN literacy does the audience have?
- What is the audience's culture and language? This might include consideration of disciplinary background and common terminology.
- How does the target audience feel about the topic? If there is resistance, how could this be mitigated?
- What type of messaging is effective for the audience? Would visuals or written text be more effective?

While there are some differences depending on whether the study has employed quantitative, qualitative or mixed methods, there are generally agreed guidelines for presenting study findings. These are outlined in Figure 8.

Don't forget the appendices: provide extra information and copies of tools used to collect data — e.g. surveys, interview guides and electronic tools to provide more context and enable readers to assess the validity and quality of the study. This will also help with replicability.

FIGURE 8. Summary of key sections for reporting on research and evaluations

Abstract	Background/ introduction	Design, methods and approach	Results/ findings	Conclusion and recommendations
<p>Define the problem under investigation</p> <p>Outline the design and methods used</p> <p>Describe key findings and their implications.</p>	<p>Provide a broad overview of the topic</p> <p>Present the literature (this could be a section on its own after the introduction if it is a large review)</p> <p>State the aims and objectives</p> <p>Provide a rationale for why the study was needed</p> <p>State hypotheses (if relevant)</p> <p>If it is an evaluation report, include a description of what was evaluated (e.g. the program) and a logic model</p>	<p>State the study questions to be answered</p> <p>Describe the design or approach taken</p> <p>Describe the scope and participants (inclusion and exclusion criteria)</p> <p>Describe the methods i.e. tools used to collect data and the procedure, data sources, data analysis methods</p>	<p>Describe the statistical procedures undertaken and present the analysis of data</p> <p>Describe the main and relevant findings with respect to the aims and objectives that were stated up front.</p>	<p>Describe what has been learnt from the findings, making clear links with the data presented</p> <p>If the report is about an evaluation, state how the findings relate to efficiency, effectiveness, experience, sustainability and impact.</p>

3.3 Undertaking culturally safe Aboriginal health research and evaluation

Aboriginal people²² in NSW and throughout Australia continue to encounter considerable social and economic disadvantage, as evidenced by measures such as income, interaction with criminal and juvenile justice, education, child protection, health, housing, employment, and economic participation. NSW Health recognises that the disproportionate prevalence and health

impacts of violence, abuse and neglect against Aboriginal people must be understood with recognition of the impacts of colonisation, forced removal of children, land dispossession, racism and discrimination, and the intergenerational trauma that these factors have significantly contributed to.²³

Research and evaluation, if and when done right, can be a powerful and empowering way to improve the lives of Aboriginal people and communities. The design and conduct of all research and evaluations should consider and respond to the distribution of the burden of disease within the population and the unique needs of priority populations such as Aboriginal people.

²² The terms ‘Indigenous’ and ‘non-Indigenous’ are sometimes used to categorise data relating to Australia’s First Peoples and all other Australians, respectively. In NSW Health, ‘Aboriginal’ or ‘Aboriginal and/or Torres Strait Islander’ are most commonly used to reflect that the term ‘Indigenous’ can minimise the differences in culture, beliefs, language, protocols and contexts among Aboriginal people,

families and communities. See: [Communicating Positively: A Guide to Appropriate Aboriginal Terminology](#) (NSW Health, 2019).

²³ NSW Ministry of Health. (2012). *NSW Aboriginal Health Plan 2013-2023*. North Sydney: NSW Ministry of Health.

The NSW Ministry of Health has provided guidance on key considerations when undertaking research or evaluation targeting Aboriginal people, or when Aboriginal people will be part of the broader study population.²⁴

Key recommendations to ensure that studies undertaken with Aboriginal people culturally safe are:

- Actively engage Aboriginal stakeholders in the conception of the research.
- Collaborate in a way that ensures Aboriginal organisations and/or communities directly benefit from the research effort.
- Complete an Aboriginal Health Impact Statement.
- Use research designs and methods that are ethical and culturally appropriate.
- Reimburse Aboriginal people, communities and organisations for their contributions.
- Involve Aboriginal researchers and community members in the team.
- Seek out and use opportunities to build the capacity of all involved in the research, including the cultural competence of the research team, and of Aboriginal people involved in research.
- Ensure the research is applied and delivers a net benefit to Aboriginal people and communities.
- Aboriginal participants and communities should be supported to monitor, reflect, question and maintain accountability in order to achieve and sustain trust and confidence that the appropriate process is being undertaken.

²⁴ NSW Ministry of Health. (2020). *Quick Guide on Undertaking Appropriate Aboriginal Health Research*. NSW Ministry of Health: North Sydney.

²⁵ Williams, V. NSW Wiradjuri. (2016). *Testing a pilot model to authentically represent Aboriginal community voices in health system design and delivery*. Sax Institute: NSW

A study that may translate into a NSW Health context was aimed at determining successful methods for engaging with Aboriginal communities to ensure authentic Aboriginal voices are heard in health service policy design, delivery and research.²⁵ This study found that the following principles could be applied in Australia to enhance development and facilitate a mutual understanding of perspectives when working with Aboriginal people and their communities.

- Be honest with your intention as to why you are there.
- Ensure you are on their time and not your own time.
- Listen without prejudice by hearing what has actually been said and what you believe you have heard.
- Reciprocity — ensure you feedback what you have heard and what you have learnt.
- Leave the door open for people to come back to you with further information.
- Act on what you have learnt. You may not always like what you hear, but you have a responsibility to authentically represent what you have heard.
- Be yourself — Aboriginal people have the best radar for those who are not authentic to their cause.

*Models of research (and evaluation) must move beyond the rhetoric of participatory research towards a model in which Aboriginal knowledge, processes, and ways of knowing are respected and understood, felt, and acknowledged through relational ethical frameworks, appropriate epistemology, and negotiated agreements.*²⁶

²⁶ Kendall, E., Sutherland, N., Barnett, L., Nadler, G., & Matthews, C. (2011). *Beyond the rhetoric of participatory research in indigenous communities; advances in Australia over the last decade*. Qualitative Health Research. <http://qhr.sagepub.com/content/early/2011/08/08/1049732311418124>

The Aboriginal Health and Medical Research Council (AH&MRC) has developed ethical guidelines undertaking research and evaluation into Aboriginal health. [AH&MRC Ethical Guidelines: Key Principles \(2020\) V2.0](#)

The document provides guidance on the requirements for Aboriginal research and evaluation governance, data ownership and publication considerations, and specific tools to support ethics applications. The guidelines also contain a set of principles to assist researchers to design meaningful, ethical, and culturally appropriate research projects and to minimise harm and mitigate risks for Aboriginal communities participating in research.

The five key principles are:

1. Net benefits for Aboriginal people and communities

The benefits of the research may be for Aboriginal health in general or specifically for the health of Aboriginal people and communities participating in the project.

2. Aboriginal community control of research

Aboriginal community control must be a key focus of all projects affecting Aboriginal people. This means that at all stages of the research project, Aboriginal people and communities participating in or affected by the research will be fully informed about and agree with the purposes and conduct of the project.

3. Cultural sensitivity

Cultural protocols and community decision-making processes will vary between Aboriginal communities. Researchers should consider this when designing a project.

4. Reimbursement of costs

There must not be any imposition upon Aboriginal people and communities to be involved in the research project.

5. Enhancing Aboriginal skills and knowledge

Build the capacity of Aboriginal people to participate in and lead research projects. Individuals may be from an Aboriginal community organisation, Aboriginal reference group, participants or researchers on the project team.

Meeting these guidelines is essential to obtaining ethics approval for research and evaluation activities from AH&MRC, and consideration of the principles in procurement, contracting, and research and evaluation design is strongly recommended. As Aboriginal people are disproportionately represented in data on prevalence and severity of violence, abuse and neglect, these guidelines and principles should be considered in all VAN research and evaluation, not just those projects with specific enquiries and focus on Aboriginal people.

Another useful guide for evaluation involving Aboriginal people and communities is the Indigenous Advancement Strategy Evaluation Framework,²⁷ which can be found here:

<https://www.niaa.gov.au/resource-centre/indigenous-affairs/indigenous-advancement-strategy-evaluation-framework>

²⁷ Commonwealth of Australia, Department of the Prime Minister and Cabinet. (2018). *Indigenous Advancement*

Strategy Evaluation Framework.
<https://www.niaa.gov.au/sites/default/files/publications/ias-evaluation-framework.pdf>

Section 4. Assessing the quality and appropriateness of evidence

This section of the strategy provides an overview of a hierarchy of evidence for consideration and a description of common study designs. It also explains why it is important that the evidence under review should be the best available and also the most appropriate for answering the research or evaluation questions and meeting the overall purpose of the study.

4.1 Best available and most appropriate evidence

While the quality of the evidence is important, it is equally important that the evidence is *appropriate* for the type of study being undertaken, the participants, and the audience for the findings. For example, with respect to health outcomes, it is generally agreed that a randomised controlled trial (RCT), and especially a systematic review of several of these trials, are the gold standard for evaluating the effectiveness of interventions. This is because the design and methods of RCTs are most able to reduce the impact of confounding or intervening variables. It is therefore conceptually easier to attribute any observed effect to the interventions being compared. However, using RCTs to gather evidence with people or communities affected by violence, abuse and neglect is most often not appropriate or feasible for ethical reasons. For guidance on ethical considerations in undertaking research or evaluation, see the National Standards on Ethical Conduct on Human Research (2007) — Updated 2018: <https://www.nhmrc.gov.au/about-us/publications/national-statement-ethical-conduct-human-research-2007-updated-2018>

²⁸ Costello, M., & Backhouse, C. (2019). *Avoiding the 3 'M's: accurate use of violence, abuse and neglect statistics and research to avoid myths, mistakes and misinformation — A resource for NSW Health Workers*. North Sydney: Education

To have confidence in both the quality and appropriateness of evidence being accessed or produced requires an understanding of research design (see Section 3), especially the clarity of the research question, *and* an understanding of the methodology most appropriate to answering that question accurately.

4.2 Hierarchy of evidence

The fact that not all evidence is created equal and the recognition that some research designs are more powerful than others in their ability to answer research questions on the effectiveness of interventions has given rise to the concept of the 'hierarchy of evidence'. The hierarchy of evidence allows the researcher to take a top-down approach to locating the 'best' evidence (i.e. having the strongest causal association). Evidence-based hierarchies rank study types based on the rigour (strength and precision) of their research designs.

...care should be taken with such a system as it tends to favour a scientific and positivist world view that isn't always a good fit for the study of violence, abuse and neglect (Goodman, Epstein and Sullivan, 2017). For example, it may be unethical to conduct a 'gold standard' randomised controlled trial where the choice would be for one group of abused children to receive an intervention while the other group of abused children receives no intervention.²⁸

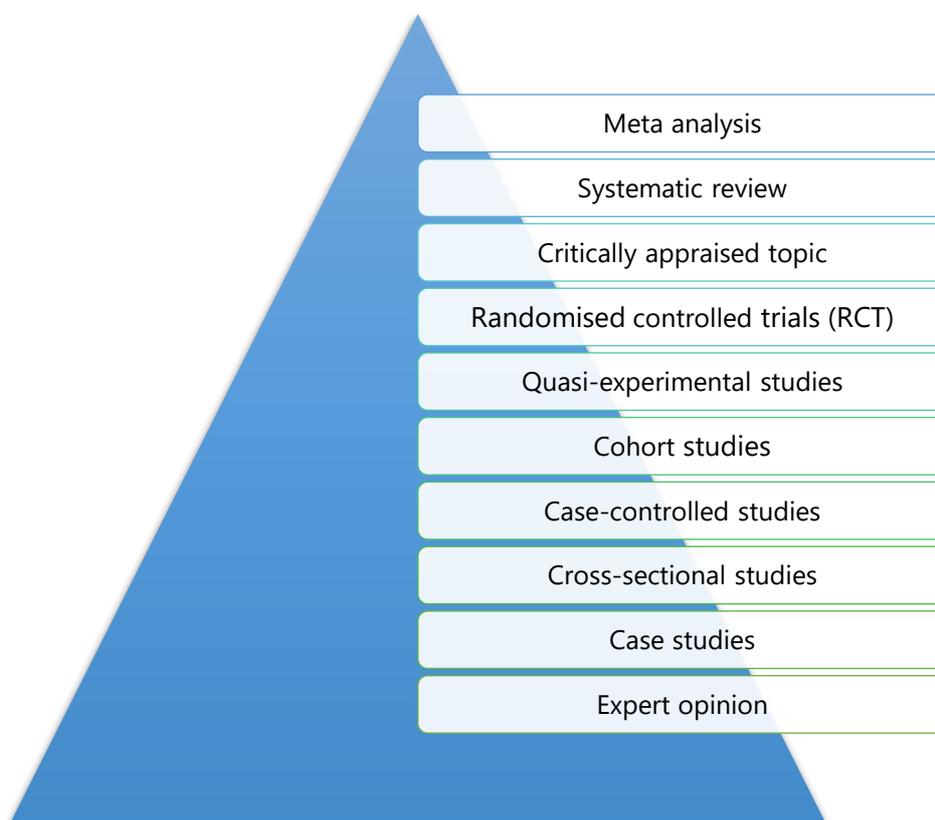
Centre Against Violence (ECAV) and Prevention and Response to Violence, Abuse and Neglect (PARVAN) Unit (Ministry of Health), NSW Health.

Different hierarchies exist for different question types, and even experts may disagree on the exact rank of information in the evidence hierarchies. In this document, the hierarchy of evidence is based on that which is derived from evidence-based medicine (EBM) and is most widely accepted within the scientific community.

Figure 9 has been adapted from the National Health and Medical Research Council (NHMRC).²⁹ The best evidence to use in decisions is then the evidence highest in the hierarchy — while also considering whether it is appropriate to the purpose of the research or evaluation.

A brief explanation of the studies based on their design and methods and their ranking in the hierarchy is provided on the next page to assist in selecting the level of evidence produced by specific studies. Many of these research studies are more appropriate to clinical health research than they are to the research undertaken by violence, abuse and neglect, however it is just as important to understand why a specific study or studies would not be appropriate for use in VAN research as why it would.

FIGURE 9. Hierarchy of evidence



Note that the study designs are ranked in decreasing order of validity.

²⁹ National Health and Medical Research Council. (2009). *NHMRC Levels of Evidence and Grades for Recommendations for Developers of Clinical Practice Guidelines*.

[https://www.nhmrc.gov.au/sites/default/files/images/NHMRC%20Levels%20and%20Grades%20\(2009\).pdf](https://www.nhmrc.gov.au/sites/default/files/images/NHMRC%20Levels%20and%20Grades%20(2009).pdf)

A **meta-analysis** is a statistical procedure for combining numerical data from multiple separate studies. When the treatment effect (or effect size) is consistent from one study to the next, meta-analysis can be used to identify this common effect. When the effect varies from one study to the next, meta-analysis may be used to identify the reason for the variation.

Meta-analysis applies objective formulas — much as one would apply statistics to data within a single study — but can be used with any number of studies. Typically, but not necessarily, the study under analysis is based on randomised controlled trials. Meta-analysis would be a poor choice if the research question is better answered with qualitative data, such as ‘How acceptable are psychosocial interventions for maltreated children?’ or ‘How do self-help group programs impact on women’s empowerment?’.

A **systematic review** is a detailed and transparent means of gathering, appraising and synthesising evidence to answer a well-defined research question. Unlike meta-analysis, systematic reviews do not apply objective statistical data, although a systematic review may also contain a meta-analysis of numerical data from the included studies.

The comprehensive nature of a systematic review distinguishes it from traditional literature reviews, which typically examine a much smaller set of research evidence and may even present it from a single author’s perspective.

The hallmark of systematic reviews is that they seek to reduce bias at all stages of the review process. Reviews registered with organisations such as Cochrane are particularly reliable, as all authors are required to adhere to the same high standards of conduct and reporting.

Systematic reviews assist in identifying gaps in the literature and in justifying the need for a research study. However, to be most useful, as stated above, the evidence identified in a systematic review must not only be of high quality, it must be appropriate to and applicable to any proposed justification for

research. In the study of violence, abuse and neglect, however, there is often an insufficient volume of rigorous studies to undertake a systematic review.

A **critically appraised topic** (or CAT) is a short summary of evidence on a *topic* of interest, usually, but not always, focused around a clinical question. A CAT is like a shorter and less rigorous version of a systematic review, summarising the best available research evidence on the topic.

For example, from a patient encounter, a clinical question is generated, which leads to a literature search for studies to answer it. From the retrieved literature, the most valid and relevant articles are chosen and are critically appraised. The main study results are summarised and translated into clinically useful measures of accuracy, efficacy, or risk.

Randomised control trials are experimental studies where participants in the trials are randomly assigned to the treatment groups to minimise bias. Most experimental studies allocate and compare treatments between individual subjects (small sample size), but it is also possible to carry out experimental interventions at the population level. This type of design should rarely be used (and is not recommended) when undertaking research or evaluation with people who have experienced violence, abuse and neglect.

Studies can also incorporate several design elements. For example, the control arm of a randomised trial may also be used as a cohort study; and the baseline measures of a cohort study may be used as a cross-sectional study.

Quasi-experimental studies are similar to randomised controlled trials (RCTs) in many respects, with the primary exception being that participants are not randomly assigned to treatment or intervention groups. A quasi-experiment may be prospective or retrospective. Given the lack of randomisation in a quasi-experiment, there are many challenges in designing and conducting a quasi-experiment to ensure strong internal validity (i.e. is the study measuring

only what it is intended to measure) because of the potential for intervening or confounding factors.

Cohort studies are observational studies that identify participants who are exposed to a particular risk factor and may be retrospective or prospective. Retrospective cohort studies are not the same as case-control studies.

In retrospective cohort studies, the exposure and outcomes have already happened. They are usually conducted on data that already exists and the exposures are defined before looking at the existing outcome data to see whether exposure to a risk factor is associated with the outcome.

Prospective cohort studies are more common. People are recruited into cohort studies regardless of their exposure or outcome status. This is one of their important strengths. People are often recruited because of their geographical area or occupation, for example, and researchers can then measure and analyse a range of interventions and outcomes.

The study then follows these participants for a defined period to assess the proportion that develop the outcome or disease of interest. Therefore, cohort studies are good for assessing prognosis, risk factors and harm.

Cohort studies should include two groups that are identical except for their exposure status. The primary strength of cohort studies is that they can establish risk directly, assess multiple outcomes, and can be used when the exposure is rare.

Case-control studies are also observational studies and conducted retrospectively. They clearly define two groups at the start: one with the outcome of interest (cases) and one without the outcome of interest (controls). Case-control studies should include two groups that are identical *except* for their outcome status. They look back to assess whether there is a statistically significant difference in the rates of exposure to a defined risk factor between the groups. Case-control studies are observational because no intervention is attempted, and no

attempt is made to alter the course of the disease. The outcome measure in case-control studies is usually an odds ratio (OR) of having been exposed in the presence of the outcome.

The primary strengths of case-control studies are they are relatively cheap to conduct, good for outcomes with long latency periods, can assess multiple exposures, and can be used when the outcome is rare.

Cross-sectional studies can be descriptive or analytical and are designed to examine the relationship between an exposure or intervention and other variables of interest in a defined population at a specified point in time. Data are collected on the whole study group or population. All factors (exposure/intervention, outcome and confounders) are measured together. There is no comparison or control group. Different population groups and different variables are measured at one point in time (e.g. age, gender, or income in relationship to — say — the prevalence of domestic and family violence or the number of young people: age/gender/Indigeneity/cultural background), or repeated points in time.

Cross-sectional studies are like a snapshot in time. They do not consider what has happened before the snapshot was taken or what happens afterwards, and do not provide definite information about *cause-and-effect* relationships. Nor do they measure incidence; however, they do measure prevalence.

Prevalence describes the number of individuals with a particular disease, health condition or experience that exists within a defined population and is measured at one point in time. Measures of prevalence can be *lifetime* prevalence (at any time during their life), *period* prevalence (over a specified period) or *point* prevalence (at a particular point in time). It is usually expressed in a percentage or number of cases per 10,000 or 100,000 population.

Incidence describes the number of new events or cases of a particular disease, health condition or experience in a given period of time. That is, the

frequency at which an event occurs during a defined time period. It is usually expressed as the number of cases of an event per 10,000 or 100,000 population.

An example that demonstrates the difference between prevalence and incidence specifically in the context of violence, abuse and neglect is provided by Costello and Backhouse:

If a single woman experienced sexual assault twice in her lifetime, a prevalence survey would record this as 1 (i.e. one individual experienced sexual assault regardless of how many times) and an incidence survey would record the incidence (or frequency) as 2 (there were two sexual assaults regardless of whether these were perpetrated against one or two individuals).³⁰

In cross-sectional studies both quantitative and qualitative methods (mixed methods) can be used to collect evidence. While the quality of the evidence produced may not be as strong as with an RCT or even a quasi-experimental study, the use of mixed methods has the potential to increase both the reliability and the validity of the study.

Case studies are descriptive and usually cover a particular presentation of a single case. Despite these being the weakest form of evidence in the hierarchy, they can still provide very useful

information, particularly in the very early stages of research into an area and are particularly useful in understanding the complexities of violence, abuse and neglect within a particular system.

Expert opinions may include handbooks, textbooks, conference proceedings, clinical experience, specialised knowledge, etc. that are not necessarily backed by research studies. While background information presents a convenient summary, often it takes about three years for this type of literature to be published.

The evaluation of evidence about public health interventions should examine not only the credibility of the evidence, but also its completeness and its transferability

The criteria used for critically appraising evidence need to reflect contemporary standards for planning and evaluating community-based programs

The term 'best quality' evidence should refer to evaluative research that was matched to the stage of development of the intervention; was able to detect important intervention effects; provided adequate process measures and contextual information, which are required for interpreting the findings; and addressed the needs of important stakeholders.³¹

³⁰ Costello, M., & Backhouse, C. (2019). *Avoiding the 3 'M's: accurate use of violence, abuse and neglect statistics and research to avoid myths, mistakes and misinformation — A resource for NSW Health Workers*. North Sydney: The NSW Health Education Centre Against Violence (ECAV) and Prevention and

Response to Violence, Abuse and Neglect (PARVAN) Unit, Ministry of Health.

³¹ Rychetnik, L., Frommer, M., Hawe, P., & Shiell, A. (2002). Criteria for evaluating evidence on public health interventions. *J Epidemiol Community Health* 56, 119–127.

TABLE 4. Summary of strengths and weaknesses of study designs

<i>Study design</i>	<i>Strengths</i>	<i>Weaknesses</i>
<i>Meta-analysis</i>	<ul style="list-style-type: none"> • Strongest level of evidence when conducted in accordance with guidelines and evaluation tools e.g. QUOROM statement (Quality Of Reporting Of Meta-analyses) • Enables the digestion and assimilation of the information obtained from the high number of publications. • Minimises bias • Provides increased statistical power that is particularly useful to examine rare events 	<ul style="list-style-type: none"> • Quality of reporting can be inconsistent • Requires time due to volume of literature in some fields • Only as valid as the studies selected for the meta — analysis. When the methodological quality of the available studies is insufficient, then conclusions drawn from quantitative combining of these data might also be inadequate • Positive results more likely to be published
<i>Systematic review</i>	<ul style="list-style-type: none"> • Provides a more objective appraisal of the evidence than traditional narrative reviews • Interprets the results in the light of the totality of available evidence • Helps to pinpoint areas where future research needs to be improved 	<ul style="list-style-type: none"> • Only as valid as the studies selected for the systematic review • Can be unreliable if the methodology of the meta-analysis is insufficient • Unpublished studies not included but may be of value • Positive results more likely to be published • Carried out retrospectively — potentially vulnerable to bias
<i>Critically appraised topic (CAT)</i>	<ul style="list-style-type: none"> • High reliability • Provides a quick and succinct assessment of what is known (and not known) • Standard approach and format 	<ul style="list-style-type: none"> • Less rigorous version of a systematic review • Evidence often based on a limited number (sometimes only one) of studies • More prone to selection bias than a systematic review or rapid evidence assessment • Breadth, depth and comprehensiveness of the search may be traded off for quickness
<i>Randomised control trials</i>	<ul style="list-style-type: none"> • Evidence level strong —able to establish causation • Decreases patient/selection/observer bias and minimises confounding due to unequal distribution in a chosen population • Blinding is easier and improves credibility • Easier to form basis for statistical hypothesis 	<ul style="list-style-type: none"> • Low generalisability due to strict criteria selection • Can be unethical • Best evidence when supplemented with other methods — e.g. epidemiological data, qualitative data • Expensive and risk that treatment fidelity may be sacrificed because of cost
<i>Cohort studies</i>	<ul style="list-style-type: none"> • Hypothesis generating and high generalisability • Multiple outcomes can be measured for any one exposure • Exposure is measured before the onset of disease but can be conducted retrospectively • Demonstrates direction of causality • Measures incidence and prevalence 	<ul style="list-style-type: none"> • Prone to bias due to loss to follow up, selection and knowledge about exposure • Costly and time-consuming • Prone to confounding • Classification of individuals (exposure or outcome status) can be affected by changes in diagnostic procedures
<i>Case-control studies</i>	<ul style="list-style-type: none"> • Cost-effective relative to other analytical studies, such as cohort studies • Efficient for the study of diseases with long latency periods • Efficient for the study of rare diseases and multiple exposures 	<ul style="list-style-type: none"> • Particularly prone to bias; especially selection, recall and observer bias • Limited to examining one outcome • Unable to estimate incidence rates of disease (unless study is population-based) • The temporal sequence between exposure and disease may be difficult to determine
<i>Cross-sectional studies</i>	<ul style="list-style-type: none"> • Relatively quick and easy to conduct (long periods of follow-up not needed) • Data on all variables only collected once • Able to measure prevalence for all factors under investigation • Multiple outcomes and exposures can be studied 	<ul style="list-style-type: none"> • Measure prevalence but not incidence • Associations identified may be difficult to interpret • Susceptible to biases such as responder bias, recall bias, interviewer bias and social acceptability bias
<i>Case report — case series</i>	<ul style="list-style-type: none"> • Fast/inexpensive • Hypothesis generating 	<ul style="list-style-type: none"> • Potential for selection bias in recalling information and the quality may be affected if the information is collected retrospectively
<i>Expert opinion</i>	<ul style="list-style-type: none"> • Could be useful if the opinion is based on the best evidence 	<ul style="list-style-type: none"> • Least reliable evidence • Basically anecdotal • Unscientific reports and observations

4.3 Levels of evidence and public health research and evaluation

A key feature of public health approaches to preventing and responding to violence, abuse and neglect is explicitly identifying and addressing the social and environmental drivers that contribute to the increased prevalence, severity and impacts of violence, abuse and neglect for specific groups of people, particularly women and children. In undertaking a 'deep dive' into evidence levels it becomes clear that the levels of evidence as set out in the hierarchy of evidence are determined largely by 'clinical' research studies and do not sufficiently reflect the body of robust evidence from non-clinical research and evaluation that is essential to understand the complex nature and dynamics of abuse, and for developing effective, context-specific, programs and public health interventions.

A key question for violence, abuse and neglect space, is to ask whether — or to what extent — evaluative research on *public health interventions* can be adequately appraised by applying well-established criteria for appraising evidence in *clinical practice*.

For example, RCTs are regularly presented as providing 'gold star evidence', yet RCTs are often unable to accommodate the complexity and flexibility that characterises public health interventions. They are perceived as being feasible only for evaluating relatively simple, standardised and unvarying interventions and therefore are often too rigid and inappropriate for public health settings.

RCTs may also be unethical for research on violence, abuse and neglect in some circumstances. For example, it would be inappropriate when studying a child abuse intervention to have a 'control group' of children who received no treatment for the abuse they had experienced. However two separate different treatment types might be compared (e.g. standard treatment vs new approach).

Decisions that are mainly determined by criteria of evaluation study design will favour interventions with a medical rather than a social focus, those that target individuals rather than communities or populations, and those that focus on the influence of proximal rather than distal determinants of health.



Understanding the cause of ongoing abuse is not simple and cannot be attributed to one cause only (proximal). The chain of events leading to the incidence of abuse in a population may be complex and involve many social and economic factors that have been present for years (distal factors).

This remains an ongoing debate and does not mean disregarding the evidence hierarchy but rather understanding that observational studies may represent the most feasible, acceptable or appropriate study designs for generating the best and most relevant evidence available for undertaking research or evaluating health interventions.

Additionally, given the social and political nature of public health, an appraisal of evidence should determine whether the outcome variables cover the interests of all the important stakeholders, not just those who conduct or appraise evaluation or research reports. Important stakeholders include those with responsibility for implementation decisions as well as those affected by the intervention. Some of the latter may be in disenfranchised groups — as is often the case in violence, abuse and neglect — and it is not always clear whose interests have been (or should be) considered, both in conducting a study to determine the efficacy of, or in evaluating, an intervention. A further argument regarding the identification and use of ‘best available evidence’ in public health suggests that a predominant focus on experimental design carries the risk of prioritising the issue of internal validity and does not sufficiently discuss the generalisability of findings — that is, external validity.

Rychetnik et al.³² argue that the appraisal of evidence about public health interventions should encompass not only the credibility of evidence, but also its completeness and its

(knowledge) transferability. They also recommend that the evaluation of an intervention’s effectiveness should be matched to the stage of development of that intervention. The evaluation should be designed to detect all the important effects of the intervention, and to encapsulate the interests of all the important stakeholders.

The authors acknowledge that these elements of evaluation have not yet been accepted as criteria for appraising evidence on public health interventions, although they are widely accepted in standards for planning and evaluating community-based programs.

4.4 Critical appraisal of evidence

Critical appraisal is the process of carefully and systematically assessing the research and evaluation to judge its trustworthiness, value and relevance in a particular context. The ability to critically appraise literature is an important element of evidence-based health, as not all research or evaluation is of good quality and many studies are biased and their results inaccurate. This can lead us to draw false conclusions.

Critical appraisal looks at the way a study is conducted and examines factors such as internal validity, generalisability and relevance. Being able to quickly and critically assess the strengths and weaknesses of a study and its relevance to the work being proposed or currently being undertaken reduces information overload and increases confidence about the validity, reliability and appropriateness of the study design, the methodology and the results.

When critically appraising studies, it is important to first look for biases in the study — that is, whether the findings of the study might be due to the way the study was designed and carried

³² Rychetnik, L., Frommer, M., Hawe, P., & Shiell, A. (2002). Criteria for evaluating evidence on public health interventions. *J Epidemiol Community Health* 56, 119–127.

out, and thus could be perceived as inaccurate. It is also important to remember that no study is perfect and free from bias; it is therefore necessary to systematically check that the researchers have done all they can to minimise bias and that any biases that might remain are not likely to be so large as to be able to account for the results observed. A study that is sufficiently free from bias is said to have internal validity.

There are many sorts of questions that a study can address. For example:

- **aetiology:** what caused this illness?
- **diagnosis:** what does this test result mean in this patient?
- **prognosis:** what is likely to happen to this client or population?
- **harm:** is having been exposed to this substance likely to do harm, and, if so, what?
- **effectiveness:** is this intervention likely to help clients with the problem under investigation?
- **qualitative:** what are the outcomes that are most important to clients with this problem?

The specific questions used to assess validity change slightly with different study designs and article types. However, in an attempt to provide a generalised checklist, no specific subtype of article has been chosen. Rather, the 20 questions below should be used as a quick reference to appraise any journal article. The first four checklist questions should be answered 'Yes'. If any of the four questions are answered 'no', then you should return to your search and attempt to find an article that will meet these criteria.

4.4.1 Appraisal of the Introduction

- Does the article attempt to answer the same question as your clinical question?
- Is the article recently published (within five years) or is it seminal (i.e. an earlier article but one that has strongly influenced later developments)?

- Is the journal peer-reviewed?
- Do the authors present a hypothesis?

4.4.2 Appraisal of the Methods

- Is the study design valid for your question?
- Are both inclusion and exclusion criteria described?
- Is there an attempt to limit bias in the selection of participant groups?
- Are there methodological protocols (i.e. blinding) used to limit other possible bias?
- Do the study methods limit the influence of confounding variables?
- Are the outcome measures valid for the health condition you are interested in?

4.4.3 Appraisal of the Results

- Is there a table that describes the subjects' demographics?
- Are the baseline demographics between groups similar?
- Are the subjects generalisable to your client or population of interest?
- Are the statistical tests appropriate for the study design and clinical question?
- Are the results presented within the paper?
- Are the results statistically significant and how large is the difference between groups?
- Is there evidence of significance fishing (i.e. changing statistical tests to ensure significance or post hoc analyses)?

4.4.4 Appraisal of the conclusion and discussion

- Do the authors attempt to contextualise non-significant data in an attempt to portray significance? (e.g. talking about findings that had a trend towards significance as if they were significant).
- Do the authors acknowledge limitations in the article?
- Are there any conflicts of interests noted?

This is by no means a comprehensive checklist of how to critically appraise a scientific journal article. However, by answering the previous 20 questions based on a detailed reading of an

article, most articles can be appraised for their merit and thus determine whether the results are valid.

Depending on the study design and the suitability of the methodology, it may be necessary to ask specific questions regarding the critical appraisal being undertaken. A valuable resource that sets out the different questions that may be needed for critical appraisal of, for example, a systematic review, qualitative study and methods, or a cohort study, is available through the Critical Appraisal Skills Program (CASP). CASP has developed a number of checklists that identify the key questions to be asked relevant to the type of study being appraised. See <https://casp-uk.net/casp-tools-checklists/>.

The Centre for Epidemiology and Evidence (NSW Health) has also developed a guide for applying a rigorous and planned approach to the preparation and appraisal of evaluation reports. <https://www.health.nsw.gov.au/research/Pages/appraising-reports.aspx>

It includes criteria for ensuring that reports are complete, that the results are robust, and the conclusions are sound.³³ While it is written from the perspective of population and public health, it may be useful for preparing and appraising reports from other areas such as the evaluation of clinical or health system interventions.

The guide is available in electronic format and provides a checklist for use when:

- planning and commissioning reports
- writing reports
- appraising reports.

Further information about the challenges and limitations of Australian data on priority populations' experiences of violence can be found in *Avoiding the 3 'M's: accurate use of violence, abuse and neglect statistics and research to avoid myths, mistakes and misinformation — A resource for NSW Health Workers*³⁴ (p. 83), available at: https://www.ecav.scodle.com/docs/wl/?id=8e9TOgGpsEFbeil7xAWbVSKYHTGkGf7t&path=VAN%2520Statistic%2520Resource%2520Paper%2520Digital_Final_10.07.19.pdf&mode=regular.

³³ The checklist is adapted from United Nations Quality Checklist for Evaluation Reports. https://evaluation.iom.int/sites/evaluation/files/documents/UNEG_Eval_Report_1.pdf

³⁴ Costello, M., & Backhouse, C. (2019). *Avoiding the 3 'M's: accurate use of violence, abuse and neglect statistics and*

research to avoid myths, mistakes and misinformation — A resource for NSW Health Workers. North Sydney: The NSW Health Education Centre Against Violence (ECAV) and Prevention and Response to Violence, Abuse and Neglect (PARVAN) Unit, Ministry of Health.

Section 5. Knowledge translation and exchange (KTE)

This section provides an overview of key elements and considerations for translating evidence into policy and practice.

5.1 Overview of knowledge translation³⁵

Knowledge derived from research and experience may be of little value unless it is put into practice. Results of evidence-based research or evaluation need to be translated into action, whether this is the development of new policy, new approaches to clinical practice or service delivery, the uptake of new knowledge by decision makers, or a promotion campaign to change behaviours at the population level.

The degree of success in turning research or evaluation into practice will depend on an understanding of what knowledge translation and exchange (KTE) means, and what is involved in the KTE process — especially what factors will facilitate or hinder the process in different contexts.

Knowledge translation (KT) has emerged as a paradigm to address many of the challenges and start closing the ‘know-do’ gap. KT is defined as:

The synthesis, exchange, and application of knowledge by relevant stakeholders to accelerate the benefits of global and local innovation in strengthening health systems and improving people’s health.”³⁶

Many terms are used to describe knowledge translation — for example: ‘utilisation’,

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³⁵ Institute for Work & Health. (n.d.) *KTE Resources*. <https://www.iwh.on.ca/knowledge-transfer-and-exchange/resources>

‘exchange’, ‘dissemination’ and ‘implementation science’. In the United Kingdom and Europe, the terms ‘implementation science’ and ‘research utilisation’ are used. In the United States, the terms ‘dissemination’, ‘diffusion’, ‘knowledge distribution’, ‘transfer’, and ‘uptake’ are used. In Canada, ‘knowledge translation and exchange’ is more commonly used.

<https://www.iwh.on.ca/knowledge-transfer-and-exchange/resources>.

In this strategy, knowledge translation and exchange is the preferred terminology, as it reinforces the understanding that KTE is not a one-way street. For example, in co-design processes, end users and other key stakeholders can communicate new knowledge to the researcher, and in action research, the researcher is exchanging knowledge with the users of that knowledge as the research is undertaken.

However, fundamentally KTE is the exchange, synthesis and ethically sound application of knowledge among researchers and users (the audience) to ensure improved health for individuals, organisations, decision-makers and better health care systems.

It is important to recognise that:

- Multiple factors influence the way research is used by different stakeholders in making decisions.
- KTE involves an interactive exchange of information between the researchers who create new knowledge and those who use it.

Knowledge translation strategies and activities vary according to the type of research to be

³⁶ World Health Organization. (2021). *Knowledge translation*. https://www.who.int/ageing/projects/knowledge_translation/en/

translated (e.g. biomedical, clinical, health services and policy or population and public health) and the intended user audience (e.g. other researchers, front-line practitioners, health system managers, policy makers or the general public or specific population groups).

Seeing KTE as a dialogic and interactive process, and not simply a one-way transference and translation of knowledge from researcher to user, has profound implications for all stages of the research process. KTE strategies can help to define research questions and hypotheses, select appropriate design and methods, conduct the research itself, interpret and contextualise the findings and apply the findings to resolve practical issues and problems. For example, engaging with Aboriginal people and communities at the commencement of a research project, as well as throughout the period of the study, is very likely to influence all aspects of the project and deliver interventions that increase the likelihood of success in achieving study objectives.

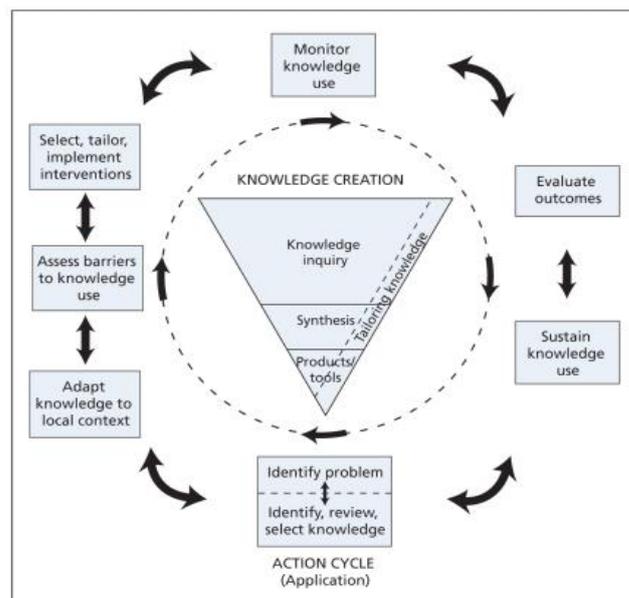
The Knowledge to Action Cycle (Figure 10) illustrates the continuous process translating knowledge into action: the ongoing use of evidence in terms of knowledge inquiry and synthesis (research), the application of that knowledge in an intervention (policy, guidelines, programs, services) and the monitoring and evaluation of the interventions.

The centre of the cycle focuses on the creation of knowledge using the evidence pyramid and, critical appraisal while the cycle itself sets out the action steps in translating that knowledge into action.³⁷

5.1.1 Identify problem, review and select knowledge

This is the typical starting point. Identifying the problem also involves comparing what is known about a problem and what current practice is — and whether there is a gap that needs to be addressed.

FIGURE 10. The knowledge to action cycle³⁸



5.1.2 Adapting to the local context

Knowing your audience and assessing the value, usefulness and appropriateness of the particular knowledge is critical to its uptake and sustained use.

5.1.3 Facilitators and barriers

There are a number of factors that can hinder or enhance the uptake of knowledge (see below) including issues relating to the knowledge itself, factors relating to those who will be using the knowledge, and the context where the knowledge is to be used. Understanding the barriers to knowledge uptake and

³⁷ Adapted from Crockett, L. (2017). *The Knowledge-to-Action Framework*. <https://medium.com/knowledgenudge/kt-101-the-knowledge-to-action-framework-7fbc399723e8>

³⁸ See Canadian Institutes of Health Research. (2012). *Guide to Knowledge Translation Planning at CIHR: Integrated and End-of-grant Approaches*. Government of Canada. Ottawa.

implementation strategies, as well as facilitators of change, are critical to effective knowledge translation activities

5.1.4 Select, tailor, implement interventions

Once an understanding of the potential barriers and facilitators to adoption has been achieved, the next phase involves planning and carrying out interventions to bring about the intended change. Whatever intervention is selected, it should be fit for purpose and based on the best evidence available.

5.1.5 Monitor knowledge use

Monitoring the use of knowledge is critical in understanding how and to what extent the KTE strategy has had an impact on outcomes (the next phase in the action cycle). This can be achieved in many ways, and again the methods of measurement should be fit for purpose — for example, observation, use of databases, surveys or questionnaires, yarning. Change may occur at more than one level, and for more than one intended end-user, and this may require multiple methods of monitoring knowledge use.

5.1.6 Evaluate outcomes

Evaluating initiatives and factors that influence scale-up and sustainability is important and can use process and outcome evaluation approaches and existing frameworks, including REAIM to assess reach, effectiveness, adoption, implementation and maintenance. Health and economic outcomes also require evaluation to evaluate long-term sustainability and continuous quality improvement.

5.1.7 Sustain knowledge use

Without ongoing support, implemented change is rarely sustained. It requires ongoing effort. Over time, barriers to knowledge use may change from those initially identified, so sustaining knowledge use includes an ongoing feedback loop that cycles back through the action phases. Addressing sustainability also involves planning for both the spread and scaling-up of knowledge use, and concerns whether or not an innovation continues to be

used beyond the initial implementation. Key factors present in sustaining knowledge use can include perceived benefits and risks, relevance, leadership, policy integration, resources and politics.

5.2 Planning KTE strategies

In planning for the effective transfer of knowledge from research or evaluation, there are key questions that should be addressed:

- What should be transferred?
Messages based on evidence that can be acted upon.
- To whom should research knowledge be transferred?
Identify the most appropriate target audiences.
- By whom should knowledge be transferred?
Choose credible spokespeople to deliver the message.
- How should research knowledge be transferred?
Using proven strategies to transfer the message.
- Identify the most appropriate target audiences.

There is no universally acknowledged 'gold standard' in KTE. The transfer and exchange process is dependent on the type of research (descriptive/experimental) and the type of knowledge to be transferred (what knowledge do team members want their stakeholders to understand and act on?). Taking these specificities into account, the research on KTE identifies a number of facilitators and barriers that are generally applicable to KTE in violence, abuse and neglect.

5.2.1 Successful principles

Despite the lack of a 'gold standard', and the need to develop different strategies that are fit for purpose, the literature also identifies a number of consistently successful principles and lessons learned, as shown in Figure 11.

5.2.2 Facilitators and barriers

KTE strategies are more likely to be successful if both the barriers and the facilitators are well understood. These are outlined in Table 5.

FIGURE 11. Successful principles for KTE

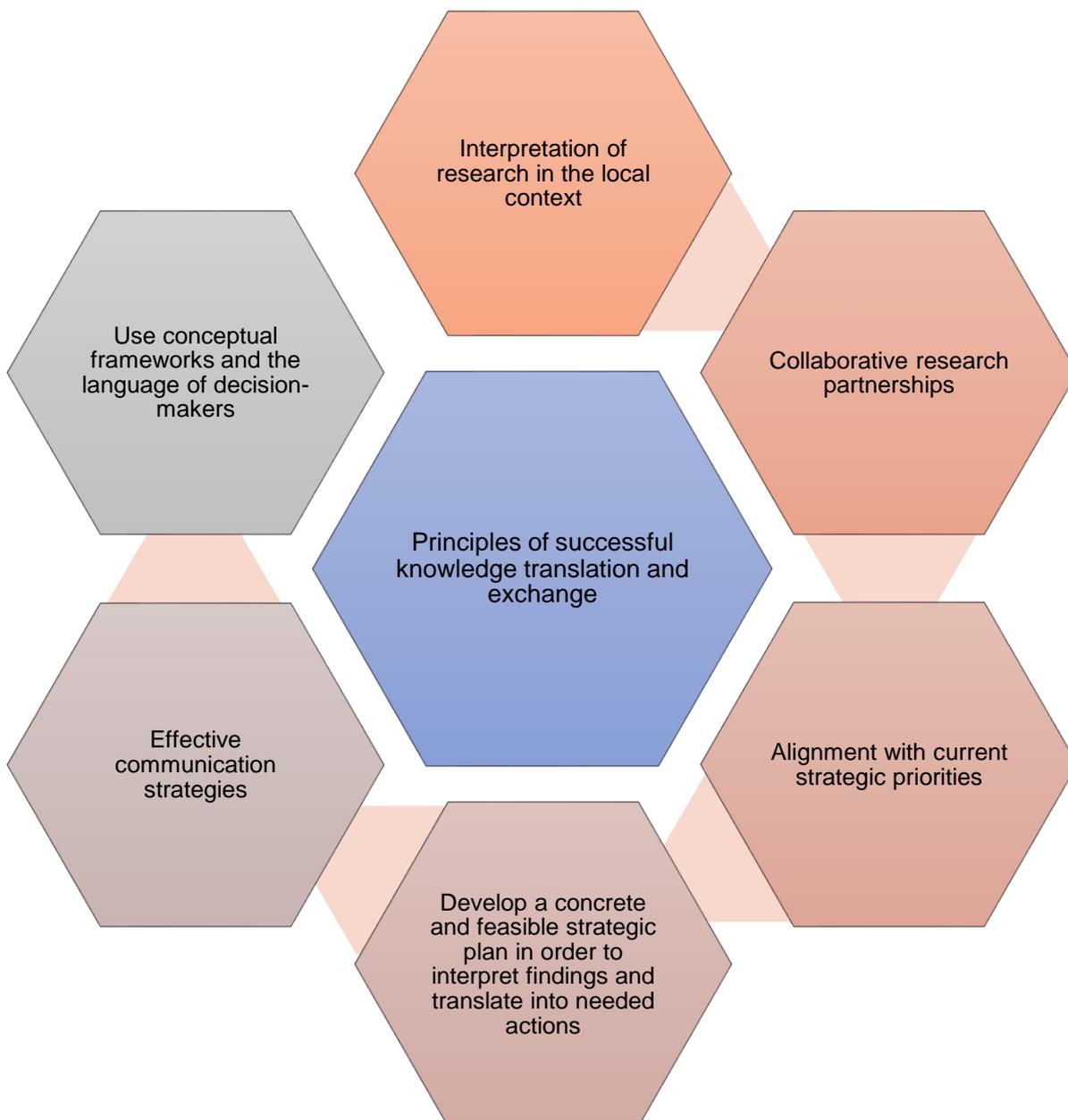


TABLE 5. Facilitators and Barriers to Knowledge Transfer and Engagement (KTE)

<i>Facilitators</i>	<i>Barriers</i>
<ul style="list-style-type: none"> • Provision of support and training (capacity building) 	<ul style="list-style-type: none"> • Unsupportive culture
<ul style="list-style-type: none"> • Sufficient resources (money, technology) 	<ul style="list-style-type: none"> • Lack of time to read and thoughtfully review the evidence
<ul style="list-style-type: none"> • Authority to implement changes 	<ul style="list-style-type: none"> • Structural barriers, such as financial disincentives
<ul style="list-style-type: none"> • Readiness for change 	<ul style="list-style-type: none"> • Lack of access to evidence sources
<ul style="list-style-type: none"> • Involvement of decision-makers in research planning and design 	<ul style="list-style-type: none"> • Difference in decision-maker and researcher timeframes
<ul style="list-style-type: none"> • Face-to-face exchanges 	<ul style="list-style-type: none"> • Frequent staff turnover
<ul style="list-style-type: none"> • Creation of opportunities to work with the users of the research (e.g. co-design) 	<ul style="list-style-type: none"> • Peer group barriers — local standards of care are not in line with desired practice
<ul style="list-style-type: none"> • Clear summaries with policy recommendations 	<ul style="list-style-type: none"> • Personal barriers including knowledge, attitudes and skills
<ul style="list-style-type: none"> • Tailored to specific audience 	<ul style="list-style-type: none"> • Large volume of evidence produced
<ul style="list-style-type: none"> • Relevance of findings 	<ul style="list-style-type: none"> • Competing interests
<ul style="list-style-type: none"> • Use of knowledge brokers 	
<ul style="list-style-type: none"> • Opinion leader or champion (expert, credible sources) 	
<ul style="list-style-type: none"> • Inclusion of short-term objectives to satisfy decision-makers 	

5.2.3 Lessons learned

KT activities alone are not enough to effect change. In summary, the evidence suggests that effective KTE requires:

- sufficient resources — financial and human
- capacity building and training
- long-term sustained relationships with trust, understanding and common goals
- mutual understanding of unfamiliar contexts, needs and expectations
- supportive organisational climates
- interest in the study topic and the capacity to understand the evidence, which is required on the part of decision-makers and other partners
- an understanding of implications is needed, and an interest in understanding how to engineer evidence-informed change
- executive level buy-in for effecting program and policy changes
- an organisational philosophy that is supportive and encouraging of KT
- individuals who use and develop research knowledge
- face-to-face interaction.

5.2.4 Knowledge transfer

The final step in the KTE process involves handing the project over to end users to ensure that audiences have access to the necessary evidence, are able to understand it and apply it in their setting. Successful transition of knowledge to the end user is a process, not a date. The process may start with end user involvement in an initial co-design process and their ongoing engagement at various stages throughout the project. This builds confidence that, when the transition occurs, all parties have a common understanding of both the research or evaluation and the handover process that is most likely to be successful and sustainable. Two commonly used models of knowledge transfer are outlined in the following section.

5.3 PARIHS (Promoting Action on Research Implementation in Health Services) Framework³⁹

The PARIHS Framework focuses on implementation processes and argues that successful implementation (SI) of evidence into practice has as much to do with the context or setting where the new evidence is being introduced and how that new evidence was introduced (facilitated into practice), as it has to do with the quality of the evidence. It focuses on the interplay between three factors:

- evidence
- context.
- facilitation.

With these three factors in mind, the framework emphasises the following points for successful transition of research into practice.

- Successful implementation of any form of evidence into practice involves **up-front planning** and the **development of shared understanding** about the benefits, disadvantages, risks and losses of the new practice over the old.
- **Organisational culture** is important. Some contexts are more conducive to the successful implementation of evidence into practice than others, such as organisations that have transformational leaders, elements of learning organisations and evaluation mechanisms.

- **Appropriate facilitation** will improve the likelihood of success. The needs of the organisation determine the type of facilitation and the role and skill of the facilitator. Facilitators need to work with both individuals and teams to enhance the implementation process (Figure 12).

5.4 RE-AIM⁴⁰

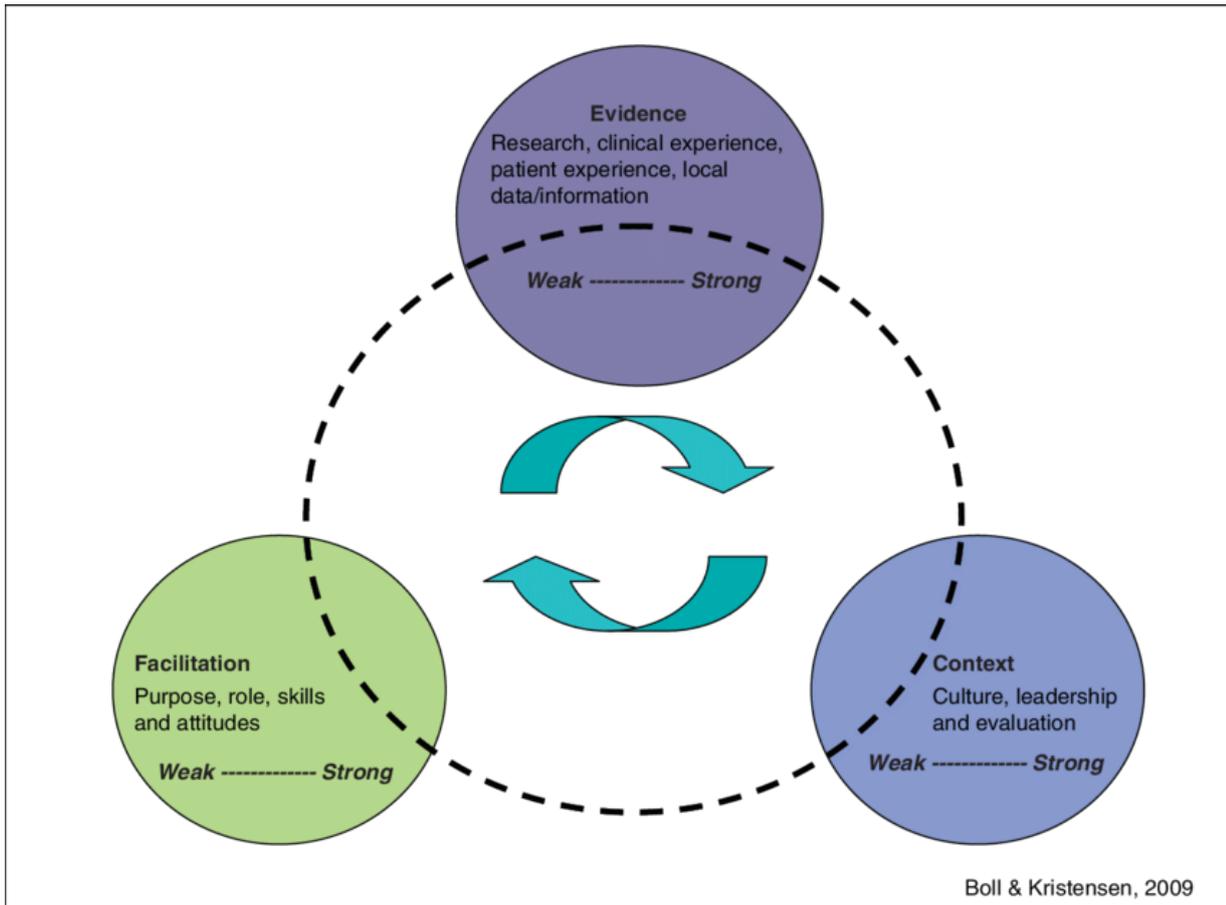
The RE-AIM model is most useful for evaluating the success or otherwise of the transition process. It identifies the following factors as important in the evaluation of the success of the transition to end users' process. The model is applicable to individuals, organisations or populations.

- **Reach:** proportion of the target population that participated in the intervention.
- **Efficacy:** success rate if implemented as in individual guidelines and defined as positive outcomes minus negative outcomes.
- **Adoption:** proportion of settings, practices, organisation and plans that will adopt this intervention.
- **Implementation:** extent to which the intervention is implemented as intended in the real world.
- **Maintenance:** extent to which a program is sustained over time.

³⁹ Kitson, A., Rycroft-Malone, J., Harvey, G., McCormack, B., Seers, K., & Titchen, A. (2008). Evaluating the successful implementation of evidence into practice using the PARIHS framework: theoretical and practical challenges, *Implementation Science*, 3,1. Sweet S.N., Ginis, K.A.M., & Latimer-Cheung, A.E. (2014). Operationalizing the RE-AIM framework to evaluate the impact of multi-sector partnerships. *Implementation Science*, 9,74.

⁴⁰ King, D.K., Glasgow, R.E., & Leeman-Castillo, B. (2010). Reaiming RE-AIM: Using the Model to Plan, Implement, and Evaluate the Effects of Environmental Change Approaches to Enhancing Population Health, *American Journal of Public Health*, November, 100(11), 2076–2084.

FIGURE 12. PARIHS Framework



Section 6. NSW Ministry of Health Population Health guidance series

The NSW Ministry of Health Population and Public Health Division have developed a range of resources to guide best practice research and evaluation. These are available in hard copy and online for quick reference.

The suite of published guides is continually being expanded and updated, so it is worthwhile checking for any updates intermittently.

<https://www.health.nsw.gov.au/research/Pages/population-health-guidance-series.aspx>

At the time of publication of this document, the following guides were available.

6.1 Study Design for Evaluating Population Health and Health Service Interventions: A Guide

This guide will support NSW Health staff in the planning of evaluations of interventions using appropriate study designs.

[Study Design for Evaluating Population Health and Health Service Interventions: A Guide.](#)

6.2 Commissioning Economic Evaluations: A Guide

NSW Health is committed to the development of evidence-based policies and programs and the ongoing review and evaluation of existing programs. This guide has been developed to support NSW Health staff in the commissioning of economic evaluations of health programs, particularly those in population health. The guide should be read in conjunction with Commissioning Evaluation Services: A Guide.

[Commissioning Economic Evaluations: A Guide.](#)

6.3 Developing and Using Program Logic: A Guide

This guide has been developed to support NSW Health staff in the development of program logic and its use in informing population health program planning, implementation and evaluation, and developing program logic, and includes information on: the meaning and purpose of program logic, when and how to develop program logic, and how program logic can be used, with a focus on planning an evaluation.

[Developing and Using Program Logic: A Guide.](#)

6.4 Commissioning Evaluation Services: A Guide

This guide to commissioning evaluation services complements the NSW Government Evaluation Framework and Toolkit. It promotes a proactive, planned and structured approach to commissioning evaluations, including information on when and how to commission an evaluation and how to make the most of the results. The guide draws on the principles and processes described in the framework and toolkit, but it is framed specifically in relation to the health context, and it focuses on commissioning an external evaluator. The guide may be used to assist NSW Health staff in developing a complete evaluation plan, or in drafting an evaluation plan to which a contracted evaluator can add value. [Commissioning Evaluation Services: A Guide.](#)

6.5 Increasing the Scale of Population Health Interventions: A Guide

This guide is designed to be used by health practitioners, policy makers, and others with responsibility for scaling up evidence-based population health interventions. It has been written primarily for use within the public sector

but could also be used by non-government organisations tasked with such processes. The guide may also be useful to researchers when designing research studies, identifying research and information gaps, seeking funding to address research and information gaps, presenting intervention research findings, and identifying opportunities for partnering in evaluation and monitoring efforts when interventions are scaled up. [Increasing the Scale of Population Health Interventions: A Guide](#).

6.6 Setting Research Priorities: A Guide

This guide has been developed to assist NSW Health staff to identify and update population health research priorities. While it is written from a population health perspective, the guide may also be useful for supporting research priority setting processes in other health or human service fields. [Setting Research Priorities: A Guide](#)

6.7 Preparing and Appraising Evaluation Reports: A Checklist

This checklist promotes a rigorous and planned approach to the preparation and appraisal of evaluation reports. It includes criteria for ensuring that reports are complete, that the results are robust, and the conclusions are sound. [Preparing and Appraising Evaluation Reports: A Checklist](#)

6.8 The Intervention Scalability Assessment Tool: A Guide for Assessing the Scalability of Health Interventions

The Intervention Scalability Assessment Tool (ISAT) is designed to assist practitioners, policy makers, program managers and researchers determine the scalability of a discrete health program or intervention.

Though developed for use in population health, the ISAT is adaptable and could be used in other health and human service settings, such as clinical interventions, mental health interventions or even educational interventions. [The Intervention Scalability Assessment Tool: A Guide for Assessing the Scalability of Health Interventions](#)

6.9 Commissioning Editorial Services: A Guide

This guide is intended to assist those commissioning editorial services or as a reference document when working with editors. It provides information on when to commission an editor, scoping editorial need, levels of editing, negotiating an editorial agreement, working with editors, style guides and submission requirements, approving the content of a publication, and designing a publication. [Commissioning Editorial Services: A Guide](#)

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APPENDICES

Appendix 1. PICOT question template examples

It can be helpful to classify your question based on the clinical domain(s) it falls under.

See below for definitions, PICO templates, and example questions from the primary clinical domains: [intervention](#), [diagnosis](#), [etiology](#), [prevention](#), [prognosis/prediction](#), [quality of life/meaning](#), and [therapy](#).

1. Intervention

Questions addressing the treatment of an illness or disability.

In _____ (P), how does _____ (I) compared to _____ (C) affect _____ (O) within _____ (T)?
In _____ (P), what is the effect of _____ (I) on _____ (O) compared with _____ (C) within _____ (T)?

In African American female adolescents with hepatitis B (P), how does acetaminophen (I) compared to ibuprofen (C) affect liver function (O)? (Time is optional).

2. Etiology

Questions addressing the causes or origin of disease, the factors that produce or predispose toward a certain disease or disorder.

Are ____ (P) who have _____ (I) at ____ (increased/decreased) risk for/of _____ (O) compared with _____ (P) with/without _____ (C) over ____ (T)?

Are _____ (P) who have _____ (I) compared with those without _____ (C) at _____ risk for/of _____ (O) over _____ (T)?

- Are children (P) who have obese adoptive parents (I) at Increased risk for obesity (O) compared with kids (P) without obese adoptive parents (C) during the ages of five and 18 (T)?
- Are 30 to 50-year-old women (P) who have high blood pressure (I) compared with those without high blood pressure (C) at increased risk for an acute myocardial infarction (O) during the first year after hysterectomy (T)?

3. Prevention

Questions on how to reduce the chance of disease by identifying and modifying risk factors and how to diagnose disease early by screening.

For _____ (P) does the use of _____ (I) reduce the future risk of _____ (O) compared with _____ (C)?

In OR nurses doing a five-minute scrub (P), what are the differences in the presence and types of microbes (O) found on natural polished nails and nail beds (I) and artificial nails (C) at the time of surgery (T)?

4. Prognosis/prediction

Questions addressing the prediction of the course of a disease.

Does _____ (I) influence _____ (O) in patients who have _____ (P) over _____ (T)?

In _____ (P), how does _____ (I) compared to _____ (C) influence _____ (O) over _____ (T)?

- Does telemonitoring blood pressure (I) in urban African Americans with hypertension (P) improve blood pressure control (O) within the six months of initiation of the medication (T)?
- For patients 65 years and older (P), how does the use of an influenza vaccine (I) compared to not received the vaccine (C) influence the risk of developing pneumonia (O) during flu season (T)?

5. Quality of Life/meaning

Questions addressing how one experiences a phenomenon.

How do _____ (P) diagnosed with _____ (I) perceive _____ (O) during _____ (T)?

- How do pregnant women (P) newly diagnosed with diabetes (I) perceive reporting their blood sugar levels (O) to their healthcare providers during their pregnancy and six weeks postpartum (T)?

6. Therapy

Questions around how to select treatments to offer our patients that do more good than harm and that are worth the efforts and costs of using them.

In _____ (P), what is the effect of _____ (I) on _____ (O) compared with _____ (C) within _____ (T)?

- What is the duration of recovery (O) for patients with total hip replacement (P) who developed a post-operative infection (I) as opposed to those who did not (C) within the first six weeks of recovery (T)?

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