

Building prevention research science communication and knowledge translation capacity through multidisciplinary collaboration

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Key points

- Collaboration between researchers and science communicators, such as through a community of practice, can help upskill researchers in science communication techniques and increase knowledge translation capacity

Abstract

Objective: To document the outcomes of a dedicated Science Communication Community of Practice (CoP) for increasing prevention-focused knowledge translation (KT) and evidence uptake.

Type of program: Shared priorities and a united vision to communicate the value of prevention research led to the formation of a dedicated Science Communication CoP within an Australian public health prevention-focused research collaboration. Members of the CoP included science communication experts and early- and mid-career researchers (EMCRs) with KT-focused roles.

Methods: The CoP met monthly, with semi-structured meetings led by an experienced science communication professional. A priority of the CoP was to develop resources that could help members and external parties to communicate their findings, especially EMCRs and those working on low-resourced projects. Insights from CoP members were synthesised to document if, and how, the CoP increased communication and KT capacity.

Results: CoP members found that participatory dialogue – dialogue that involves sharing perspectives and listening to others in order to develop a shared understanding - helped promote a greater understanding of science communication techniques and led to KT being embedded within projects. The CoP itself resulted in shared narratives and communication outputs that could not have been produced by individual members, primarily due to a lack

Key points (continued)

- Participatory dialogue can be used to develop a more united voice for prevention research and effectively synthesise messaging about 'what works for prevention' for policy and practice audiences
- Creating joint communications and shared narratives can help circumvent limited resourcing for science communication

of dedicated resourcing. Members found that engaging in the CoP increased their use of a range of science communication skills, tactics, and methods (e.g., targeted messaging for policy and practice, use of media and social media, and event management to engage audiences and build trust).

Lessons learnt: The CoP helped build a greater working knowledge of science communication among its members, leading to increased KT activities. Within an environment of low resourcing for science communication, bringing researchers together with science communication experts can help promote the communication of synthesised evidence and unified messaging on 'what works for prevention'.

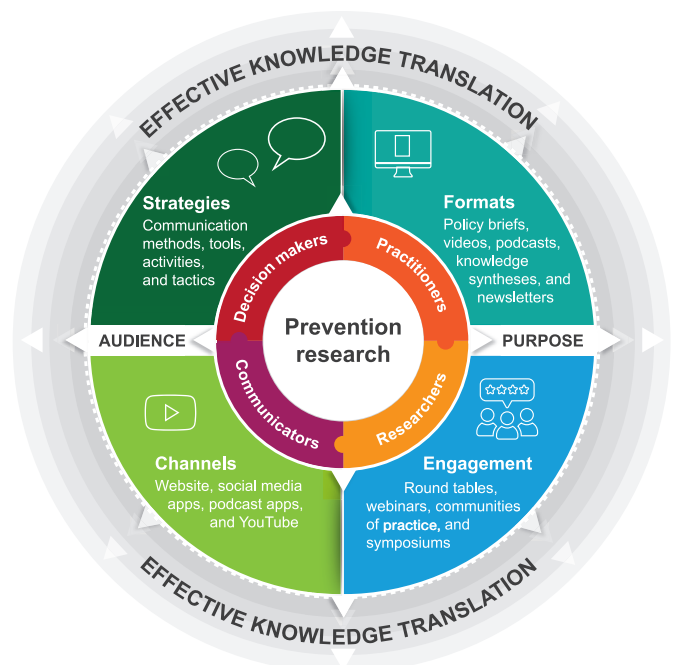
Introduction

Considerable information exists about 'what works in prevention'. However, this alone is not enough to drive change. Evidence needs to inform policy and practice and be disseminated and implemented at scale to have a population-level impact.¹ Despite their proliferation, academic publications are not the most effective way of disseminating knowledge to policymakers, practitioners or the public (hereafter referred to as end-users), limiting the uptake of evidence into policy and practice.^{2,3} One way to address this is through knowledge translation (KT), defined as processes including synthesis, dissemination, exchange and application of knowledge to improve health.⁴ One component of KT is employing the most effective strategies to share knowledge with a variety of end-users, a key role of science communicators.⁵

Science communication tailors communications to diverse audiences through the use of different sources, channels, and messages, written in different tones and styles at different time points, and with various levels of engagement to build trust.⁶ Science communication thus plays a key role in KT, making research discoverable, accessible, and relevant to end-users to help motivate tangible actions.⁷ It can also help extend the reach of the research beyond the health sector to address social determinants of health.⁸ Having access to clear, relevant communication products representing united voices, such as summaries synthesising the practical and policy-relevant implications of research, is especially valued by policymakers.⁹

The diversity of modern communication platforms means traditional media no longer has a monopoly on sharing information.¹⁰ While this has created challenges in terms of miscommunication and information overload, it also presents an opportunity for academia to utilise a broader range of communication strategies, channels, and formats, including those currently employed by The Australian Prevention Partnership Centre (the Prevention Centre) (Figure 1).

Figure 1. The Prevention Centre's model where science communication is used to promote effective knowledge translation and evidence uptake



Source: The Australian Prevention Partnership Centre

The responsibility of communicating research to end-users often falls to early- and mid-career researchers (EMCRs). However, at this career stage, EMCRs are under pressure to 'publish or perish', which may force them to deprioritise communication activities beyond academic publications.^{11,12} Compounding this, researchers may not have the time, resources, or specific skills required to communicate complex information to different audiences. There are also system-level barriers to effective science communication, such as a lack of financial resources to support professional science communication capacity within organisations, and an absence of relationships between researchers and end-users.^{13,14} Consequently, science communication is often sporadic or neglected.

There is a long-standing need to build researchers' science communication skills and to embed science communication experts in research environments.¹⁵ This paper aims to illustrate insights gained from a Community of Practice (CoP) bringing together researchers and science communication professionals to build capacity and capability in science communication.

Setting

The Collaboration for Enhanced Research Impact (CERI) is a joint initiative among 11 prevention-focused National Health and Medical Research Council (NHMRC)-funded Centres of Research Excellence (CREs) across Australia, and The Prevention Centre. CERI aims to enhance the profile and impact of chronic disease prevention research in Australia through shared narratives, capacity building and communication.¹⁶ Given CERI's explicit focus on communication to enhance research impact, a Science Communication CoP was formed to build capability and capacity in disseminating targeted prevention evidence.

Methods

A CoP brings together groups of people with a common interest to interact regularly to exchange knowledge, innovate, and solve problems. This model was chosen as it has been shown to facilitate interprofessional learning and collaboration.^{17,18} The CoP was established in February 2022 and at the time of writing, comprises 19 CERI members with KT roles, including EMCRs and science communication experts. The EMCRs come from fields including health and nutrition, implementation science, research management, and policy translation, and were primarily post-doctoral researchers < 10 years post-graduation. The science communication experts come from a range of communication sub-disciplines such as journalism, social media, design, publishing, public relations, and events management, which presented unique interdisciplinary learning opportunities. The CoP met approximately monthly, with semi-structured meetings led by experienced science communication professionals. As members were located across Australia, meetings were held online. The CoP engages attendees in participatory dialogue, where members share their experiences and work together to arrive at a shared understanding of how to approach common issues. Topics covered in meetings included communication planning, search engine optimisation, navigating social media, writing in plain English, writing an opinion article, hosting an event, storytelling, and writing policy briefs. Insights contributed by members were synthesised into relevant chapters of an online User Guide, providing practical tips for effective communication based on CoP members' practice experience. These science communication resources aimed to support both members and external parties, especially EMCRs

and those working on low-resourced projects.¹⁹ The insights presented below were primarily gathered during discussion among CoP members at a specially convened CoP meeting in August 2023.

Findings

Building capacity through collaborative learning

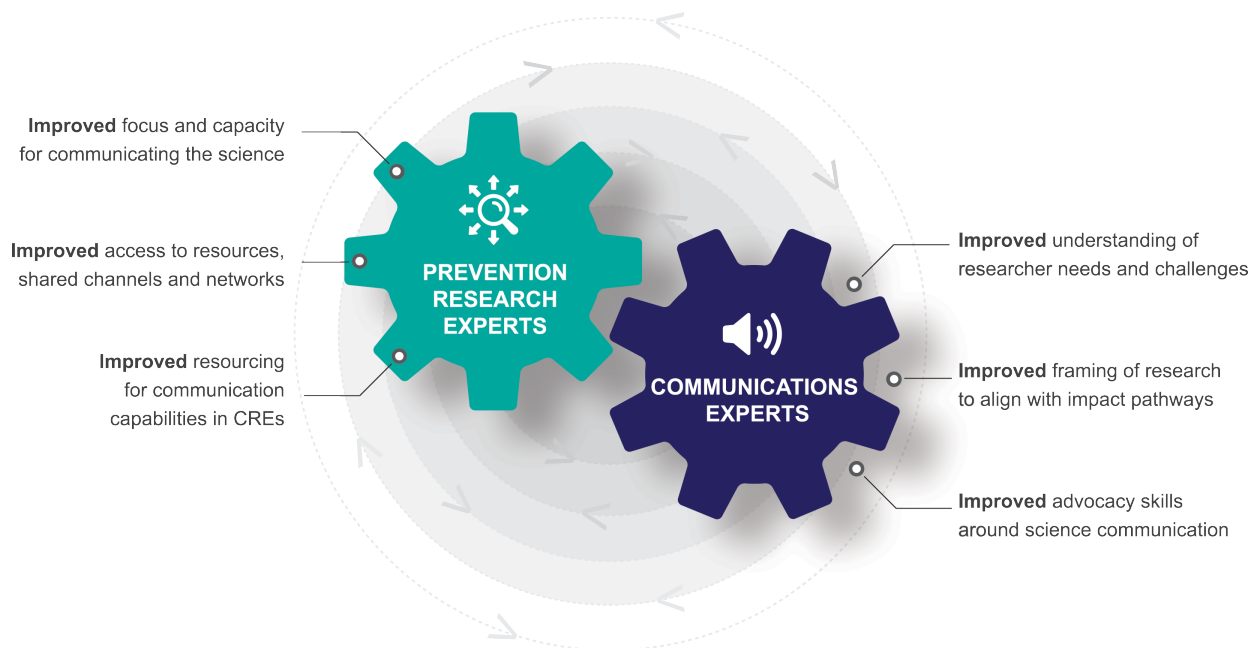
Members of the Science Communication CoP identified the most useful outcomes as: access to experience; advice and support; increased knowledge about and awareness of the value of science communication; and confidence and skills in using science communication techniques. As a multidisciplinary group, members said the CoP had enabled effective collaboration and brought researchers, EMCRs and science communication experts together. Working more closely with, and spending time talking to researchers, also helped science communication experts identify useful key messages and communicate these more effectively through shared narratives. These shared narratives include policy briefs, media opinion pieces, submissions for policy inquiries and summary syntheses, which has extended the focus of CERI into advocacy. The messaging in the narratives is co-produced and approved by multiple CREs, meaning these communications represent the agreed position of hundreds of researchers from multiple organisations and thus carry more weight than if they had been produced by one CRE alone.

Feedback from CoP members indicated that engaging in the CoP increased efficiency, through the development of collaborative communications, and being able to leverage the prior experience and learnings of others. The shared communication products provided messaging consistency and reduced duplication of content, allowing more communication products to be developed. The benefits identified by both science communicators and researchers have been summarised in Figure 2.

Benefits for science communicators

CoP members expressed that, in many research organisations, there is a linear relationship between research and communication, where researchers approach a communication professional only after the research is completed and they want to communicate it more broadly. The CoP meetings provided an opportunity for regular dialogue with researchers, which professional science communicators felt enabled them to identify relevant messages, newsworthy research, and research synergies between disparate organisations. Rather than describing a distinct piece of research and its findings, communication experts were better able to synthesise a broad body of research into messaging that met end-users' needs.

Figure 2. Key benefits of belonging to a multidisciplinary Science Communication Community of Practice



Source: The Australian Prevention Partnership Centre

The CoP members felt that working collaboratively across CERI eased the burden on individual CREs. By understanding the priorities and pinch points or points where problems can occur in researchers' work, communication experts were able to frame communication in a way that met researchers' needs (e.g., aligned with impact pathways), and could recommend communication strategies to which researchers were more likely to be receptive.

"If we can communicate better, using the tips and skills we've learnt along the way, that can be taken and shared to help others... [then we are] actually contributing something very tangible to the world of research." – CoP member with science communication expertise.

Benefits for researchers

Researchers in the CoP felt it had supported their ability to disseminate and communicate knowledge, through simplifying processes and providing access to resources, channels, and networks. Feedback from the CoP's EMCR members indicated that engaging in the CoP has changed how CREs communicate. For example, they reported that it had improved the use and understanding of website search engine optimisation and social media, resulted in more resources being tailored to specific audiences, and led to the use of a broader range of tools, consistent with the communications model used by the Prevention Centre (Figure 1). This has led to the development of more diverse communication products, which have been associated with increased research impact.³ A collaborative approach to communication also

emerged, with CREs supporting each other, helping to overcome issues of limited communication capacity within individual CREs. Importantly, at a CRE level, it resulted in an increased focus on, and capability for, science communication and KT.

"It can be hard for researchers to say things plainly. We can say 'this works, BUT evidence only shows it works well in this condition, and it doesn't work as well in that condition'... It [the CoP] has helped find that balance between research rigour and not overwhelming people with details." – EMCR CoP member.

Brief discussion and conclusions

The Science Communication CoP was developed in response to an identified need to build KT capacity via dedicated science communication efforts to improve public health prevention research translation. Specialised communication skills are required for research to reach and engage end-users. This is often considered for other fields (e.g., health promotion in the context of large public health campaigns) although is mostly absent in prevention research. In the age of misinformation, it is timely for funders to support science communication for prevention, which can support improved population health through the provision of trusted information sources.²⁰

This CoP focused on the communication and dissemination of research evidence to different audiences. Recognising that science communication is an extensive field that includes building trust through

participatory practices, other CoPs may choose to focus on stakeholder engagement to build long-term relationships with potential end-users of the research.

The formation of the Science Communication CoP has led to improved skills and capacity for science communication in 11 NHMRC CREs in Australia and has supported the development and testing of strategies and messages to promote the uptake of research findings. Based on the positive experiences of this CoP, it is recommended that science communication be embedded from the start of research projects. We hope that other research collaborations can learn from these experiences and work to build science communication capacity within EMCRs and the broader research community.

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Peer review and provenance

Externally peer reviewed, invited.

Competing interests

None declared.

Author contributions

All authors were responsible for the conceptualisation, design and drafting of the manuscript. SN drafted the initial manuscript and synthesised the CoP members' insights. All authors reviewed and revised the manuscript critically for intellectual content. All authors approved the final manuscript.

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