Update
Increasing the utility of systematic reviews findings through strategic communication

Kirsty Jones1, Philip Baker2, Jodie Doyle1, Rebecca Armstrong1, Tahna Pettman1, Elizabeth Waters1
1Cochrane Public Health Group, Jack Brockhoff Child Health and Wellbeing Program, McCaughey VicHealth Centre for Community Wellbeing, Melbourne School of Population & Global Health, The University of Melbourne
2School of Public Health & Social Work, Faculty of Health, Queensland University of Technology, Australia
Address correspondence to Kirsty Jones, E-mail: kirsty.jones@unimelb.edu.au

Introduction
Knowledge translation and exchange (KT&E) strategies aim to support the decision-making process by facilitating the incorporation of high-quality and timely research evidence into decision-making.1–3 Such strategies aim to bridge the gap between research producers and end-users of research, building interactive communicative relationships between the two groups.1–5 The Cochrane Public Health Group (CPHG) is using a suite of KT strategies, including stakeholder engagement, knowledge brokering, targeted dissemination and workforce development, to ensure that the findings of CPHG reviews are known to and used by appropriate stakeholders to inform decision-making processes. These efforts are ongoing, in response to decision-maker’s needs, and aim to proactively facilitate the use of evidence in different types of policy environments.

As new systematic reviews are published on The Cochrane Library, various KT&E strategies are required to ensure the findings and recommendations from each review reach the people who need to act upon them. One such KT&E strategy focuses on dissemination through strategic communication.

When the CPHG was originally formed in 2008, the dissemination activities undertaken for the first published reviews occurred in an opportunistic way and were predominantly led by review authors. Over time, CPHG’s approach to dissemination has evolved and communication strategies for newly published reviews have been developed. These strategies aim to ensure that dissemination activities are targeted towards relevant stakeholders with appropriate, tailored messages. This paper will use two published and disseminated reviews as case studies to describe CPHG’s dissemination activities and demonstrate how communication strategies can be developed and applied in practice.

What is a communication strategy?
A communication strategy outlines the goals and methods for communication to ensure that activities are effective and reach the right people in the right way. Such strategies provide a framework to identify how to disseminate research findings to the intended and appropriate end users.6,7 Whilst implementing communication strategies can expand the reach of reviews, they can also facilitate dialogue between research producers and end-users of research. This dialogue can support the development of relationships and ultimately improve links between academic, policy and practice professionals, promoting ongoing knowledge exchange.

Taking a strategic approach to dissemination
An effective communication strategy should take an audience-centred approach.8 In the same way that knowledge translation both ensures that practitioners and policy-makers are aware of and use research, and research is informed by the needs and priorities of these groups, communication is also a two-way process. To ensure that communications are listened to and considered, efforts must be made to understand the target audience. It is important to identify where and when

Kirsty Jones, Research Fellow, Cochrane Public Health Group
Philip Baker, Professor, School of Public Health & Social Work, Faculty of Health, Queensland University of Technology
Jodie Doyle, Managing Editor, Cochrane Public Health Group
Rebecca Armstrong, Senior Research Fellow, Cochrane Public Health Group
Tahna Pettman, Research Fellow, Cochrane Public Health Group
Elizabeth Waters, Coordinating Editor, Cochrane Public Health Group
the audience seek or receive information, what their information needs are and the appropriate type of language to use.6,8

Identifying what is to be achieved
A number of essential elements are needed to build an effective communication strategy. First, it is important to outline what the strategy should achieve.6,7 Precise objectives, set out from the outset, ensure that time and resources are used effectively and efficiently. SMART (specific, measurable, attainable, relevant and timely) objectives9 can help to shape the actions that the strategy aims to bring about and define how wide reaching the strategy should be.

The CPHG recently published a review on slum upgrading interventions and their impact on health and socioeconomic outcomes.10 A specific strategy was developed to communicate the findings of the review to audiences with an interest in improving conditions in slum dwellings. The authors were interested in communicating with groups from policy, delivery and research perspectives. Although the review was able to identify some interesting findings on the effectiveness of slum upgrading strategies, a limited evidence base meant the review was not able to make definitive policy or practice recommendations. However, the review did identify ways in which evaluation of slum upgrading could be improved. The authors therefore wished to use the communication activities to both raise awareness of the review itself and facilitate a dialogue on how evaluation of slum upgrades might be improved; in turn increasing the likelihood that updates to the review will reflect more reliable evidence in the field.

Identifying the stakeholders
Secondly, the range of stakeholders relevant for an individual review need to be determined and primary and secondary groups identified6 (CIHR, 2011). For instance, primary audiences may be those who are directly involved in policy or practice, such as policy or practice-level decision-makers, whilst the secondary audience might incorporate groups or individuals that influence policy or practice, such as funders/donors of programs or research, thought leaders and/or community groups. Once the appropriate groups and organizations have been identified it is also important to identify the relevant individuals within these organizations. Such stakeholder mapping is essential for determining what and how communication is undertaken. The identified audiences will shape both how key messages are articulated and also how they are delivered. In many cases, different audiences will require different messages and different channels.6,8

A CPHG review examining the effectiveness of community-wide interventions for increasing physical activity (CWI4PA) was originally published in April 2011.11 Communication activities for the CWI4PA review began with the publication of the protocol of the review on The Cochrane Library, with a range of interested stakeholders initiating contact with the review authors. These stakeholders were included in the list of individuals to be contacted upon publication of the review, and helped define potential audiences for further dissemination. The authors determined that community-based practitioners, decision-makers involved in community-wide interventions and other researchers in this field, were the main audiences for dissemination.

After determining the objectives for communication of the slum upgrading review, a wide range of audiences were defined. The key groups who were relevant to communicate to were recognized as: researchers involved in monitoring and evaluating slum upgrades, donors who provide funds for slum upgrades, organizations and practitioners who are designing and implementing strategies for upgrades and decision-makers who develop slum upgrade policies. The authors’ knowledge of the key players and organizations in the field and further internet searching produced a more targeted list of individuals, groups and organizations. The mechanisms for how best to reach these audiences could then be considered.

Develop a core message
The third element of a communication strategy is to develop a core message which can then be tailored and adapted for each stakeholder group. The message must capture the interest of the audience and set out how stakeholders should act upon the message. Technical jargon should be avoided and the relevance to the target group should be highlighted6 (CIHR, 2011).

The CWI4PA review highlighted that much of the included studies were at high risk of bias, the findings conflicting and in most cases there was a lack of reliable evidence. However, there was a perceived risk identified from the authors and the editorial team that this core message could be misinterpreted as community wide programs for increasing physical activity being shown as a group to be ineffective, which was equally not supported by the available evidence. Therefore, the authors considered it important to highlight the need for more robust evaluation of these programs and the promising directions for future interventions in communications of the review findings. Further, the authors felt important to communicate that those combining interventions should look carefully at the components they are combining, and consider whether the high-intensity studies undertaken in China are translatable to western settings.

Identifying appropriate communication tools and delivery methods
Once these essential elements of the strategy are defined, the appropriate communication tools can then be produced. Communication tools can vary widely and can include direct communication with identified stakeholders such as phone calls, emails, webinars or workshops. Other communication products may be less direct but wider reaching. Such tools might include blog posts, media coverage, one page summaries,
policy briefs and podcasts. Often these later communication tools can be used to instigate or leverage more direct communication with identified stakeholders.

When creating products for distribution to stakeholders, these products must be developed whilst also considering the channel or medium of communication. It is important to deliver the communication products in a way that is relevant for the audience; an understanding of where the audience looks for information is essential.6,7

For the slum upgrading review, where individual stakeholders and organizations could be identified, a one page summary of the review was emailed directly to them. This summary sought to clearly outline what the review was about, how it was carried out and the main findings and recommendations. The main aim of this activity was to initiate a meaningful dialogue between the authors and the individuals and organizations contacted.

Channels of communication can be varied. Given that the reviews of the CPHG are international in terms of scope and relevant audiences, social media platforms are often most appropriate. Sites such as Twitter can draw the attention of far reaching audiences to the communication products developed. Connecting with relevant Twitter users and using appropriate hashtags to categorize the tweet (message) are important for ensuring tweets are seen and acted upon by the identified stakeholders.

Desktop, web-based research can also reveal specialist news websites which discuss issues relevant to the topic of the review. These sites can attract the target audience and so can be an ideal channel for communication. Approaching the website’s authors and determining what type of communication is appropriate for their audience is advisable.

In addition to the one page summary sent to the groups identified during the initial stakeholder analysis, a 3 min podcast was produced for the slum upgrading review and posted on The Cochrane Library. Twitter was then used to promote the podcast. In addition, blogs and websites, which attracted audiences involved in different aspects of slum upgrading, were researched. One such organization, which is involved in urban health within slum communities, welcomed a guest blog on their site. The authors of the review then produced an article, which contained their core messages and which was tailored to the audience of that site.

In order to build awareness of the existence of the CWI4PA review and its key findings, the authors engaged a science writer from the Centre for Advancing Health. The writer prepared a story that was free from technical jargon and accurately summarized the review and so was therefore understood by audiences with a non-academic background (http://www.wcfah.org/hbns/2011/community-wide-programs-to-encourage-exercise-might-fall-short#UVy9F1cT3d0). This story was repeated by several media outlets, including websites whose primary audiences were interested in physical activity.

A podcast for the CWI4PA review was also posted on The Cochrane Library and materials for the Cochrane Journal Club were prepared. These products engaged users accessing The Cochrane Library and Cochrane.org and were also linked on the CPHG’s website. The products were initially promoted on The Cochrane Library website and subsequently through correspondence to prospective decision-makers and agencies such as the US Community Guide to Preventive Services. Correspondence also included persons who earlier expressed interest arising from publication of the protocol. Given that four of the included studies of this review were undertaken in China, it was recognized that a podcast prepared in Mandarin would engage a potentially significant audience otherwise not reached. Subsequent publications and communication were made through journal articles, book chapters, presentations to policy-makers and conference presentations to increase awareness of methodological and cultural issues among academics and facilitate discussion. These strategies identified the range of perceptions of the review and also reached and influenced those presently undertaking research, offering the potential to close the methodological gaps identified by examining the studies in the review.

It is worth noting that not all communication activities are planned and authors need to be ready to respond and capitalize on these opportunistic occasions. The CWI4PA review was featured on Health-evidence.org, an evidence repository aimed at the public health workforce and policy-makers. The initiative assesses the quality of systematic reviews and provides an evidence summary, including considerations for public health practices (http://www.healthevidence.org/documents/byid/21588/Baker2011_EvidenceSummary_EN.pdf). The authors were asked by the web administrators thereafter to host a webinar to engage with stakeholders directly around the methods and findings of the review. This more personal engagement identified the challenges of presenting findings based on a limited evidence base and those that were incongruent with and unsatisfactory to those who have vested interests in the perceived success of the interventions under review. The webinar also aided the identification of new studies presently underway and which will be relevant for the update of the review.

Timing communications

Finally, the communication strategy should consider the timing of communication. Identifying opportunities, such as conferences or the work of other, like-minded, organizations, may present other engagement, dissemination and exchange opportunities. It is also important to recognize that communication activities may not be time limited; strategies therefore need to be flexible and revised over time. Relationships that are developed during the initial activities can be utilized to inform review updates and guide further research. The
Effective and successful strategies are adopted. The slum upgrading review was published in February 2013, and dissemination efforts will continue over the next 6 months. Opportunities for further dissemination have been identified at the International Conference on Housing and Urban Environments in April 2013, which will bring together key stakeholders of the review and represents an opportunity to communicate directly to these groups.

**Conclusion**

In synthesizing the evidence base, Cochrane review findings can help inform the decision-making process. Well considered dissemination strategies planned upfront and negotiated and capitalized on as situations and opportunities present themselves, are required to ensure these findings reach the appropriate people and therefore have a greater chance of being acted upon. For any communication strategy developed it is important to recognize that there are a wide range of stakeholders and a variety of opportunities for engagement from protocol publication through the life of the review.

This paper has described the dissemination activities undertaken by authors and CPHG over the last few years. Whilst further work is required to determine the impact of taking a strategic approach to dissemination, the group is able to reflect that dissemination strategies do increase the potential to reach and connect with relevant stakeholders.

Effective communication strategies have the potential to not only expand the reach of research findings to inform policy and practice as well as future research, they can also serve to initiate and nurture relationships, further promoting KTE, guiding review updates, dissemination and having input into priority topics for new reviews, for example. They do however require time, effort and the appropriate skillset. More investment is required to provide authors with support to both develop and deliver a communication strategy. In turn, further resources are required to evaluate the effectiveness of dissemination strategies to ensure that the most efficient and successful strategies are adopted.

**Updated reviews**

- Parenting interventions for the prevention of unintentional injuries in childhood.
- Interventions for smoking cessation and reduction in individuals with schizophrenia.
- Nutritional interventions for reducing morbidity and mortality in people with HIV.
- School-based physical activity programs for promoting physical activity and fitness in children and adolescents aged 6 to 18.

**New protocols (from CPHG)**

- Built environment interventions for increasing physical activity in adults and children. Interventions for preventing abuse in the elderly.
- Participation in environmental enhancement and conservation activities for health and well-being in adults. Service brokerage for improving health outcomes in ex-prisoners.

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**References**


