Be creative in communicating your research findings

This is the last part of our mini-series on research funding and, in some ways, it covers the most important aspect — dissemination of your findings. Not only will this enhance for your future funding credability and inform your peers, but it is essential that you are able to document the evidence showing you have used the funding you acquired for the purposes it was intended. There are numerous ways in which to do this and some of these are presented here.

Informing others of your findings is important whether this has involved gaining funding or not. *Why* is it important and not just an after-research chore? The reasons are many. Research should be open to peer-evaluation because published data influences the evidence base. Adding data to the evidence base will strengthen theories and may lead to change or innovation, and so adequate scrutiny is essential. This process can also develop our critique skills and promote learning — both by the researchers and by their peers. Furthermore, colleagues and patients deserve to know if you have identified something that influences medical practice or patient management — for the better or for the worse — particularly those who have been involved in the research. The stakeholders who have stumped up the cash for your project also deserve to know what you have found. Informing policy-makers and decision-makers of relevant findings is important because your conclusions could influence policy — at a local or national level — and possibly help more people than your original target group.

Understandably, preparing your work for others to assess might seem a daunting task. However, there are many ways to disseminate information and as you learn how best to do this for different audiences your confidence will grow and it will become easier — and even enjoyable.

How to begin

Creating a presentation — be this oral or written — can be challenging, but it will also help you question your original concepts and research conclusions, and will clarify your thoughts. The first decision you need to make is what you have to say about your findings. This, of course, depends upon your study results and the answer will

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influence subsequent decisions about who needs to be informed and how this should be best achieved. A common problem when a research project ends is that, having devoted many long hours toiling over it you are so familiar with the research that your answer to this question may be clouded by thinking that you have got just one

insignificant fact to report or maybe even that you have nothing particularly important to say. This is where a quiet room and a pen and paper will be handy!

Go for a brisk walk, get some fresh air into your lungs and then sit down with a large sheet of paper and divide it into four columns. In the first list your original objectives, in the second list how you have met these, including additional findings, and in the third list all the groups of people who might be influenced by or interested in the findings. One way to expand your list is to tell someone who is not involved with your research what you have done and found. Their natural curiosity will inevitably stimulate further ideas and may remind you of aspects you had forgotten about. The fourth column will contain the variety of ways you could inform each of the groups. Almost certainly, if this process is new to you, you will not make a full list in one sitting and may need to go back to this several times — possibly after having discussions with peers and senior colleagues.

The reasons for separating out the findings to be disseminated and then linking these with different recipient groups is that you will be able to more clearly decide how best to deliver the information to each group. There will be several options for methods of delivery to target audiences and each method might have a different
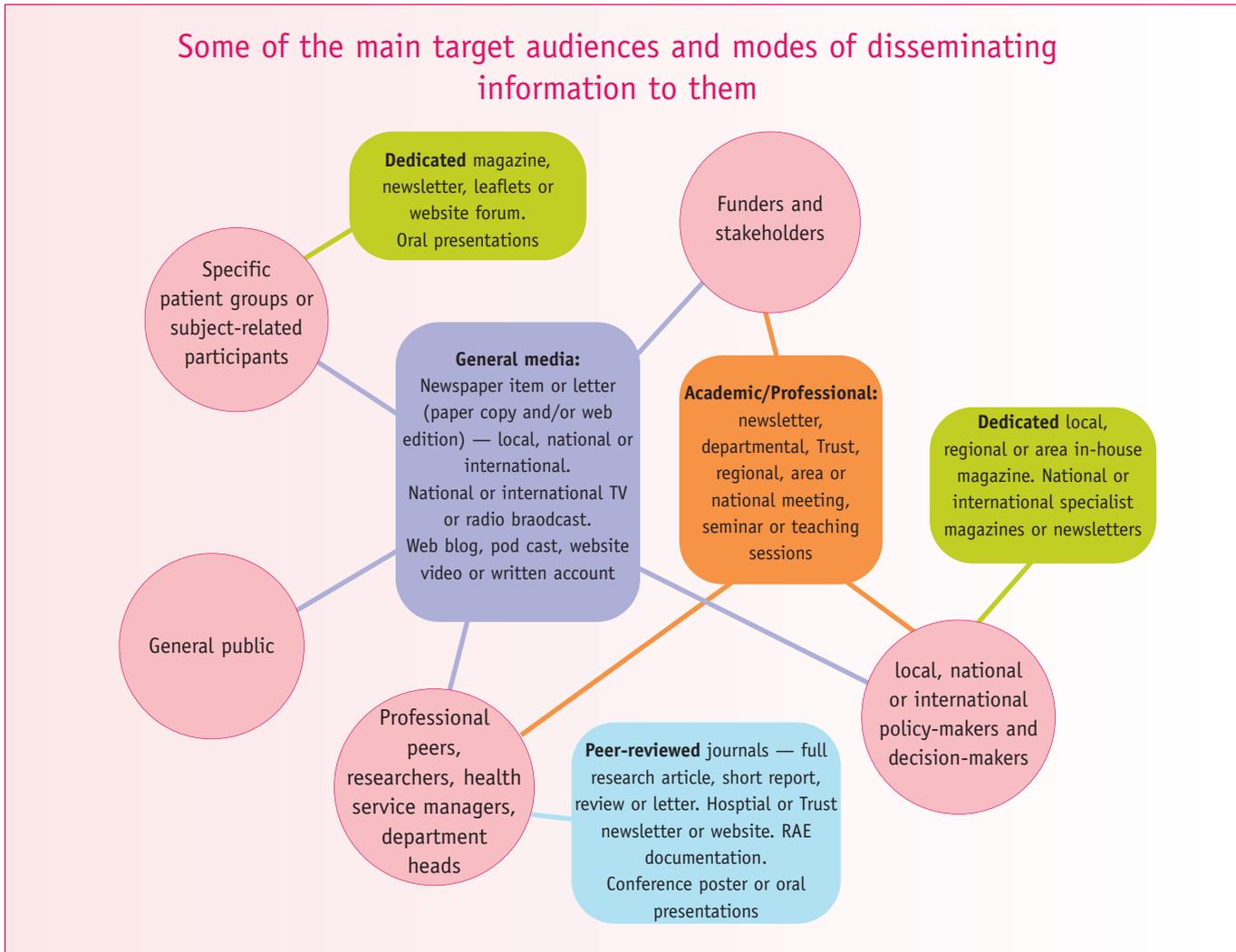
Some of the main target audiences and modes of disseminating information to them

Dedicated magazine, newsletter, leaflets or website forum. Oral presentations

Funders and stakeholders

Specific patient groups or subject-related participants

General media:
Newspaper item or letter (paper copy and/or web edition) — local, national or international.
National or international TV or radio braodcast.
Web blog, pod cast, website video or written account

Academic/Professional:
newsletter, departmental, Trust, regional, area or national meeting, seminar or teaching sessions

Dedicated local, regional or area in-house magazine. National or international specialist magazines or newsletters

General public

Professional peers, researchers, health service managers, department heads

Peer-reviewed journals — full research article, short report, review or letter. Hosptial or Trust newsletter or website. RAE documentation.
Conference poster or oral presentations

local, national or international policy-makers and decision-makers

Figure 1. Target audiences, such as specific patient or policy-maker groups, academics or professionals (pink circles) may recieve tailored information — through in-house (orange box) or peer-reviewed (blue box) academic media; dedicated local- or regional-specific media (green boxes), or more general and widely available media (purple box). The way in which information is delivered will depend upon the intended audience and media format.

impact. Figure 1 illustrates some of the main potential interest groups (in the pink circles) that might form the focus of your disseminations, along with a variety of methods you might use (coloured boxes). You will see that there is a degree of overlap in the methods that can be used to disseminate your findings. However, you will need to adapt your *style* of delivery according to the different recipient groups.

Once you have identified your target audience groups and the information that you wish to impart you can look in more detail at the media available to present your findings through and plan how to deliver it.

Presenting to academic peers and professional groups

Oral or written reports are the main ways to present to professional groups,[1] but the type of presentation will vary with the intended audience. For strictly locally-relevant information in-house (such as departmental or Trust-wide) seminars and local or specialist newsletters will often be most appropriate. For more widely applicable information publication in peer-reviewed journals — either generalist journals, such as the *BMJ*, *Lancet*, *Health Service Journal* or *Pharmaceutical Journal*, or more specialist medical journals in your field of research — may be preferred. A quick scan through

your medical library or PubMed, searching for your research topic, will enable you to construct a list of target journals. The Royal Pharmaceutical Society of Great Britain (RPSGB) has an excellent library, staffed by helpful and efficient librarians who are only too happy to search out and mail to you items of interest. This should form one of your core resources and a first port-of-call for information. You may already have a good idea of the range of journal possibilities from the literature reviews you undertook before writing your grant application and from those you will have conducted during your research. At this stage, in drawing up your short-list of potential

journals for submission, the nature of the reader and the extent of coverage (such as, to general medical or specialist medical groups, national or international readers) may be more important in influencing your decision. You will usually be able to ascertain these details from the general information section of the journal. Remember you must not submit the *same* piece of work to more than one journal. If you identify different target audiences that would benefit from your data in different ways you can present the information to each group from a different perspective. If

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the data you intend to present is *exactly* the same, however, you must refer to the original published paper containing the data in subsequent papers.

You will need to familiarise yourself with the writing style of the in-house or peer-reviewed publication by looking through past issues.[1] Many journals also provide brief instructions to authors within the journal (brief author instructions for *Pharmacy in Practice* are on p146, for example) or by contacting the editor. You may find research reports similar to your study within the back-issues, which will be a good indication of the appropriateness of your work for the journal. If you are in any doubt about the relevance of your information to the journal audience send an abstracted summary to the editor and ask for his or her opinion.

Many journals accept a variety of manuscript types. This includes full academic papers at around 2000 words, shorter research reports at around 600–1000

words, letters, reviews and forms of editorial or commentary. Decide what type of paper your data best lends itself to and map it out before you start the main writing. We have given detailed information about how to write manuscripts for academic journals in our *Research methods* series (electronic copies are available from *Pharmacy in Practice*)[1] and the RD Direct website[2] contains a wealth of information about writing and disseminating research. Another excellent source of information on writing for a variety media is Schober and Farrington's Trent focus on *Presenting and disseminating research.*[3] Similarly, Raynor and Silcock's PowerPoint presentation[4] is an essential guide to how and where to disseminate a range of research findings. Readers are encouraged to refer to these resources for detailed instruction — and for further inspiration.

Oral presentations can range from local seminars, teaching sessions and workshops to subject-specific conferences. A list of some health-related conferences can be obtained from the RDLearning website (current listings are up to October 2009,[5] so you could plan ahead) and many can be found through web search engines and interest group mailings — or you could organise your own.

Clear, concise PowerPoint presentations are essential for large-audience oral presentations and they require a completely different writing style from that of academic manuscripts. Some key points to bear in mind are to be consistent throughout your presentation in terms of slide layout and effects used. Give each slide a title that reflects the content and list the content in short bullet points — no more than three or four points to each slide, ensuring that the font size is large enough that all writing can be read by viewers at the back of the conference hall or seminar room.

Don't use too many bells and whistles as effects or you will distract the audience from your main points — some of the PowerPoint effects such as hand clapping and somersaulting words are overused and sometimes simply annoying. Similarly,

interspersing information slides with humorous cartoons or pictorial slides can help to lighten a talk, but don't use this too much or dwell too long on these slides. Simple is often the most impactful.

If you are also intending to present a poster at a meeting you can be artistically creative but a simple, clear message on a 'non-busy' background is often best. Ensure you accompany your figures with clear, explanatory figure legends throughout, and give a summary of the main points. You will be expected to stand by your poster to discuss it with your colleagues during the dedicated poster sessions and will be able to offer further explanation about your work, so prepare well and make sure there is a logical flow of information. Many researchers also offer printed copies of their poster in A4 format, which may help in networking and building future collaborations.

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Informing specific groups
Patient groups and other lay beneficiaries
In general research conducted in the health and social care arenas is aimed at benefiting patients or care users in addition to assisting professional colleagues. Researchers should therefore aim to inform as many of the relevant groups as possible. Information given to lay groups must assume no or little prior knowledge about the subject and be conveyed in layman's language — although using clear, plain, uncomplicated wording is always good practice. Reports sent to lay groups will generally contain less detail on methodology and fewer substantiating

references compared with those sent to professionals. However, the general public is beginning to expect more evidence-based information to back up the reports it receives — no doubt a response to the media spin that is all too often put on medical findings. With this in mind, care (of course) must be given to report your findings accurately and responsibly and not to overplay your research implications, but, this is particularly important when the information is delivered to media reporters, the general public and patient beneficiaries, whose hopes for treatment successes must not be unrealistically built up.

Patient support groups for specific illnesses often have dedicated newsletters and websites. It is therefore logical to approach the editors and suggest they consider including a short report about your work within their publication. Before you submit a report to the editor, where appropriate, it may be wise to ask a senior colleague or specialist in the area to read through your paper paying special attention to how the beneficiary might interpret it. This can help to iron out any ambiguities that could arise by incomplete explanation or technical jargon that might have escaped your notice.

It might be appropriate to inform people in several languages and those with specific disabilities, such as a visual impairments. You will need to understand how best to communicate with these groups — and many will be only too happy to help you with this. Translators may be commissioned for written or audio formats. For visually impaired viewers you might consider commissioning the production of braille or audio versions of your report. It is not uncommon these days to upload audio or video commentary to the internet, perhaps as webcasts, podcasts or other downloadable formats. Once this is uploaded and published, however, it is almost impossible to remove because works are copied, linked and downloaded into other media very rapidly — so, to avoid any nasty surprises, make sure that what you upload is correct and what you *intended* to upload.

Policy-makers and decision-makers

Personnel responsible for making decisions and setting policy will have little time to research background to your work and check the facts you send them. It is worth, therefore, demonstrating that the information you send them has been peer-reviewed and they will appreciate concise writing with the main outcomes bulleted. This could list the key findings, implications and, where applicable, recommendations. Your reference list can include your peer-reviewed publications and these can be appended to your report.

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Depending on your topic you might decide to submit something directly to government in-house magazines, such as the UK Government's *The House Magazine* or *Parliamentary Monitor*, or write to your local MP. Similarly, health service managers, department heads and other decision-makers could be circulated with summaries of your work and invited to your in-house or other presentations. Often your hospital or Trust media centre will help disseminate your findings through press releases and by contacting the relevant internal and external personnel.

Informing the general public

One of the main ways that the general public are notified of research progress is through press releases being sent to the general media and this becoming 'a story'. An agency that much of the general and medical press subscribe to is AlphaGalileo.[7] This is a web-based news-collecting and disseminating agency, where press releases are posted by researchers and medical communications staff. These are available for journalists to access and they can receive automatic notification of press releases of specific interest. If you have topical and interesting research this is a good place to advertise, because all media — national and international newspapers, TV channels and radio stations — access and use this site.

Press releases are written in a standard format — only the first 8–10 words will appear on a reporter's email subject bar and this should be fully explanatory and eye-catching (but not misleading or tongue-in-cheek). If you do not grab the attention of the recipient with this line, the chances are that they will delete the email without reading it. The body of the press release you post on AlphaGalileo is sent within automatically-generated emails from AlphaGalileo to requesting journalists. This begins with a title and short paragraph detailing the study findings. The relevance of the findings follows and possibly some methodological or other relevant details are given after this. A summary line or two ends the release along with your contact details. Professional press releases take time and experience to create, but once your release is posted you should be ready to respond to any press calls.

You can always send your press release to specific editors or news desks, but try to follow the format suggested above and do not send the release solely as an attachment. Editors receive a large amount of spam and there is the constant concern about virus-containing emails so many will not open a press release that is sent as an attachment! In contrast, the content of an email can be quickly and easily scanned, and it can be passed to the relevant reporter to follow up.

Sources of help

A number of websites offer instant, online help with manuscript or slide presentation for academic or lay audiences. Some of these are listed in Table 1, but your funder will inevitably also be able to offer help and advice — and in some cases, such as the Wellcome Trust, training. Indeed, many research funders, including the Wellcome

Research funding

Trust, Big Lottery Fund and the Pharmacy Practice Research Trust (PPRT) will *expect* their researchers to disseminate the results of their studies as part of the grant contract. This is a requirement for the PPRT, for instance, to meet its charitable objectives of 'advancing and promoting the knowledge and skill of pharmacists for public benefit'. The PPRT maintains that research not disseminated is equal to research not done. Knowledge arising from research whether this be discussions around methodological approaches or difficulties, or the observed findings from research should be open to transparent and public scrutiny, especially where public funding is invested.

The PPRT believes that dissemination of its funded research encourages networking, discourages duplicated effort, provides knowledge for novel and expert researchers and ultimately potentially leads to greater patient or public benefit. It therefore helps its researchers by assisting with publications and by organising events where their funded research is reported to a wider stakeholder audience. The PPRT has also announced a new mentoring scheme to support and advise those new to research on all the key areas, which would include communication, and more information is available about this on their website (Table 1).

Summary

It is the professional responsibility of all researchers to disseminate their findings as widely as is appropriate. There are a number of creative ways this can be achieved and many funders will help researchers with their dissemination plans.

Additional benefits from all means of dissemination — whether this is an invited local talk or publication in an international, high-impact factor journal — is that this will add weight to your cv and to your departmental RAE efforts. By documenting your output and sending this to funders you can demonstrate both your research abilities and your commitment to disseminating information in responsible and creative ways. ❧

Christine Knott, editor, *Pharmacy in Practice*

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4. Raynor T, Silcock J. These researchers from the School of Healthcare Studies, University of Leeds have devised an excellent PowerPoint presentation entitled *Disseminating research: Choosing how and where to publish*, which gives a very easy-to-follow guide to disseminating a range of research findings. This presentation is available through the RDInfo website at http://www.rdinfo.org.uk/flowchart/Presentation.ppt [accessed on 20 April 2008].
5. RDLearning. A list of health-related conferences in date order (currently to October 2009) is available on its website at http://www.rdlearning.org.uk/ManageConferences/ListConferences.aspx [accessed on 20 April 2008].
6. RDFunding. This section of the RDInfo website contains information about preparing poster and oral communications and is available at http://www.rdfunding.org.uk/background/Reporting.html [accessed 20 April 2008].
7. AlphaGalileo website http://www.alphagalileo.org/. This website acts to disseminate news information in a variety of subject areas. Journalists are able to register to receive automatic emails containing press releases that are specific to their interests.