

GETTING POPULATION HEALTH RESEARCH TO INFLUENCE HEALTH SERVICE PRACTICE: USE OF AREA HEALTH SERVICE QUESTIONS IN THE NSW HEALTH SURVEY

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The difficulty of getting research data to influence practice is well recognised in many fields including public health,^{1,2} education, social science,³ and clinical health care.⁴ A number of factors appear to limit the use of research. First, researchers and practitioners often work in isolation of each other. Second, researchers have few incentives to ensure dissemination of results apart from publication.⁵ Third, research organisations and service delivery organisations have different objectives, time frames, philosophies, and cultures. Fourth, management support for implementing changes in service delivery in response to research, though crucial, is often lacking.⁶ Last, research results may not be relevant to practitioners who often need data simply to legitimise and sustain predetermined actions.

Strengthening the capacity of practitioners to conduct their own research, or to be actively involved in research, could ensure that the data generated are relevant and useful to practitioners. The inclusion of area health service (AHS) specific questions in the 1997 NSW Health Survey provided the opportunity to examine this hypothesis, and the process of transferring research into practice in 17 different locations.

The 1997 NSW Health Survey was a telephone survey of randomly selected residents aged 16 and over in each of the 17 AHSs of NSW. In addition to the core questionnaire, each AHS was invited to submit up to three minutes of questions that were asked only of English-speaking respondents in their AHS. The AHS specific questions were included in the Survey to assist the AHSs to meet their responsibilities for the health of their populations, by providing a mechanism to collect local data to inform service planning and evaluation.⁷ AHSs were not given specific guidelines on how to develop their questions, although each was asked to nominate a contact person and support was provided by the NSW Department of Health in the form of feedback on submitted questions. Most AHSs settled on about fifteen questions that covered five broad topic areas.

The aims of this study were to investigate the:

- process by which AHSs developed their questions;

- extent to which AHSs analysed the responses to their questions;
- extent to which each AHS used the results generated from their questions;
- relationship between the process of question development, the extent of analysis, and the use of the results.

METHODS

The data were collected in two waves of semi-structured telephone interviews with AHS staff who were involved in the development of the AHS's questions. The first wave of interviews examined each AHS's process of developing the questions and the planned use of the responses. These interviews were conducted in 1998, before the responses to the AHS's questions were available. The second wave of interviews, conducted in 1999 and 2001, after the responses had been provided to the AHSs, examined the extent of data analysis, dissemination and use by each AHS. Four AHSs did not complete the second interview, as question developers were unable to be contacted. All of the first and 10 of the second wave of interviews were conducted by Julianne Quaine.

Notes recorded during the interviews were examined by the three authors to identify differences between AHSs in the processes followed to develop their questions and the subsequent analysis, dissemination, and use of the data.

RESULTS

Development of AHS questions

AHSs varied in the process of development of their questions:

- the degree of organisational structure associated with question development ranged from a loose collaboration of interested individuals to the establishment of a specific committee;
- the level of consultation varied from a very consultative approach including a wide range of participants, to consultation involving only one or two people;
- the organisational positions and roles of people involved differed among AHSs. However, in most AHSs, public health and/or health promotion staff were involved in the development of the questions;
- some AHSs selected question topics according to AHS priorities, while in others topics were determined by the personal interests of the question developers;
- during the development phase, some AHSs were very specific about the intended use of the survey data, while others were not.

TABLE 1**EXTENT OF ANALYSIS AND REPORTING OF DATA FROM AREA HEALTH SERVICE SPECIFIC QUESTIONS FOR THE 13 AREA HEALTH SERVICES THAT COMPLETED INTERVIEWS ***

Extent of analysis and reporting	Number of areas
Detailed analysis of all questions and a report completed	2
Detailed analysis of some question data with some reporting	3
Simple analysis of all or some question data with limited reporting to question developers	3
No analysis	5
TOTAL	13

* Four AHSs did not complete the second interview.

Analysis and use of AHS data

The analysis and use of data also varied between AHSs:

- the level of data analysis ranged from none to extensive, involving for instance cross tabulations with age and sex and other demographic variables. Within AHSs that had performed analyses, the extent of the analysis varied among topic areas;
- the reporting of the analysis of the question responses varied from an internal report to a more detailed report or a paper for publication—where more complex analysis was undertaken, the reporting was likely to be in a paper for publication;
- where analysis of the question responses had occurred, the degree of dissemination of the analysis varied from limited circulation among the question developers to wide dissemination, either to a range of groups across the AHS or via publication of results.

AHSs were classified into four groups according to the degree of analysis and reporting of the data generated by their questions (Table 1).

Overall, respondents reported that the results arising from the AHS specific questions had little influence on AHS priorities, policies or services; in fact the questions were said to have had an influence in only three AHSs. However, some respondents pointed out that the data had confirmed what they knew or suspected about an issue and so the effect had been to maintain a status quo.

Where little or no analysis of the data had been undertaken, respondents cited a number of reasons for this. Foremost was a lack of skills or resources to undertake the analysis. Some AHSs felt that the data did not appear to be very useful or provide the information they had expected. In a number of AHSs, staff who had been involved in developing the questions had left, resulting in data that were no longer considered relevant to the AHS.

Predictors of analysis of AHS data

The five AHSs where a detailed analysis had been undertaken were examined to identify possible predictor

variables in the question development process. These AHSs had several similar features:

- senior population health-oriented staff were involved in question development;
- they followed a structured approach in the development of their questions;
- consultation in the development of the questions was restricted to a defined group of people within the AHS, usually within population health services;
- there was at least one local champion for the questions. It appeared that questions that were of interest to individual members of the question development group were more likely to be analysed in detail compared with questions that were proposed to the group by others;
- the question champion(s) still worked in the AHS when the data became available;
- they were able to state clearly at the first interview how the data were going to be used. This was true even within AHSs where there was internal variation in the degree of analysis of the questions—those questions for which the question developers were clearly able to articulate the planned use of the data were more likely to have been analysed.

In contrast, the eight AHSs where little or no analysis occurred also shared features in common in the development of their questions:

- the main question developer was generally in a junior position within the AHS, with limited support from more senior staff;
- the process to determine the questions was generally unstructured, regardless of whether it involved few or many people;
- there was a low level of interest in the AHS in the development of the questions;
- there was a lack of clarity about how the data were to be used.

Predictors of the data influencing practice

Only three AHSs reported that the data from the AHS specific questions had any influence on the programs or priorities of the AHS. It is therefore difficult to identify predictor variables for this. However, common features were again clarity about the intended use of the data, and the involvement of an individual who was particularly interested in the data.

CONCLUSIONS

We are conscious that no definite conclusions can be drawn from such a small study. The inclusion of AHS specific questions in the 1997 NSW Health Survey was, however, a 'natural experiment' and we believe that with limited resources we have identified some interesting findings. The involvement of local service providers in the development of AHS specific questions did not guarantee that the data generated would be analysed or

used. However, this study suggests that involving practitioners in research is more likely to result in the data being analysed if certain conditions are present:

- question development occurs within a structured process involving relatively few, senior, population health-oriented staff;
- the proposed use of the data is clear during the question development process;
- a champion for the questions is involved from start to finish;
- there are sufficient skills and resources to undertake the analysis.

There are several possible reasons why the data had limited local influence. First, AHSs are likely to be influenced to change priorities or services by a whole range of factors. Thus, local data are likely to be used only in conjunction with other information and requirements. Second, some data supported an AHS's existing understanding of an issue and therefore changes were not required. Confirming the appropriateness of current services or priorities is, we believe, a legitimate use of data. Third, this was the first

time that AHSs had had the opportunity to contribute locally generated questions to a statewide survey.

REFERENCES

1. Nutbeam D. Improving the fit between research and practice in health promotion: overcoming structural barriers. *Can J Public Health* 1999; 87s2: s18–23.
2. De Leeuw E. Health policy, epidemiology and power: the interest web. *Health Promotion International* 1993; 8: 49–52.
3. Beyer JM, Trice HM. The utilization process: a conceptual framework and synthesis of empirical findings. *Administrative Science Quarterly* 1982; 27: 591–622.
4. Haines A, Jones R. Implementing findings of research. *BMJ* 1994; 308: 1488–92.
5. Johnson JL, Green LW, Frankish CJ, MacLean DR, Stachenko S. A dissemination research agenda to strengthen health promotion and disease prevention. *Can J Public Health* 1999; 87s2: s5–10.
6. Hawe P. Needs assessment must become more change-focused. *Aust N Z J Public Health* 1996; 20: 473–8.
7. Jorm L, Puech M. *Strategy for population health surveillance in New South Wales*. Sydney: NSW Department of Health, 1997. ☒

COLLECTING INFORMATION FROM PEOPLE OF NON-ENGLISH SPEAKING BACKGROUND: TRANSLATION OF SURVEY INSTRUMENTS IN THE NSW HEALTH SURVEY PROGRAM

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Around one-quarter of NSW residents were born overseas, and 50 per cent of these were born in countries where English is not the main language spoken. Of these, over 25 per cent do not speak English proficiently enough to complete a telephone survey in English.¹ In order to improve the representation of people of non-English speaking (NES) background in the surveys, the questionnaires for the 1997 and 1998 NSW Health Surveys, 1999 Older People's Health Survey, and 2001 Child Health Survey, were translated into the major community languages where English proficiency is poor. This article describes the challenges of translating health survey instruments, lessons learnt through experience, and issues for consideration in the future.

CHALLENGES

The main aim of any translation is to ensure that the meaning of the text is maintained, as opposed to the actual content of the text.² When translating health survey instruments, not only must the meaning be maintained,

but differences among cultures in how 'health' is perceived and expressed must also be incorporated.

In population surveys of this kind, an additional challenge is to incorporate the translation process within the overall survey development program, to ensure that it is simple and cost-effective. Conversely, the number of languages to be translated needs to be minimised, and the translated questionnaires need to be able to accommodate the differences within language groups such as dialect, regional variation, and cultural nuance.

NSW HEALTH SURVEY PROGRAM TRANSLATION MODEL

In order to address these difficulties, and other related issues, staff working on the NSW Health Survey Program examined models for translation,^{3,4,5} and from these developed a translation model. This model has three main stages: pre-translation, translation, and back-translation (Figure 1).

The current translation model has been used by the NSW Health Survey Program since 1997, with only minor amendments. Translated questionnaires have been