

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.

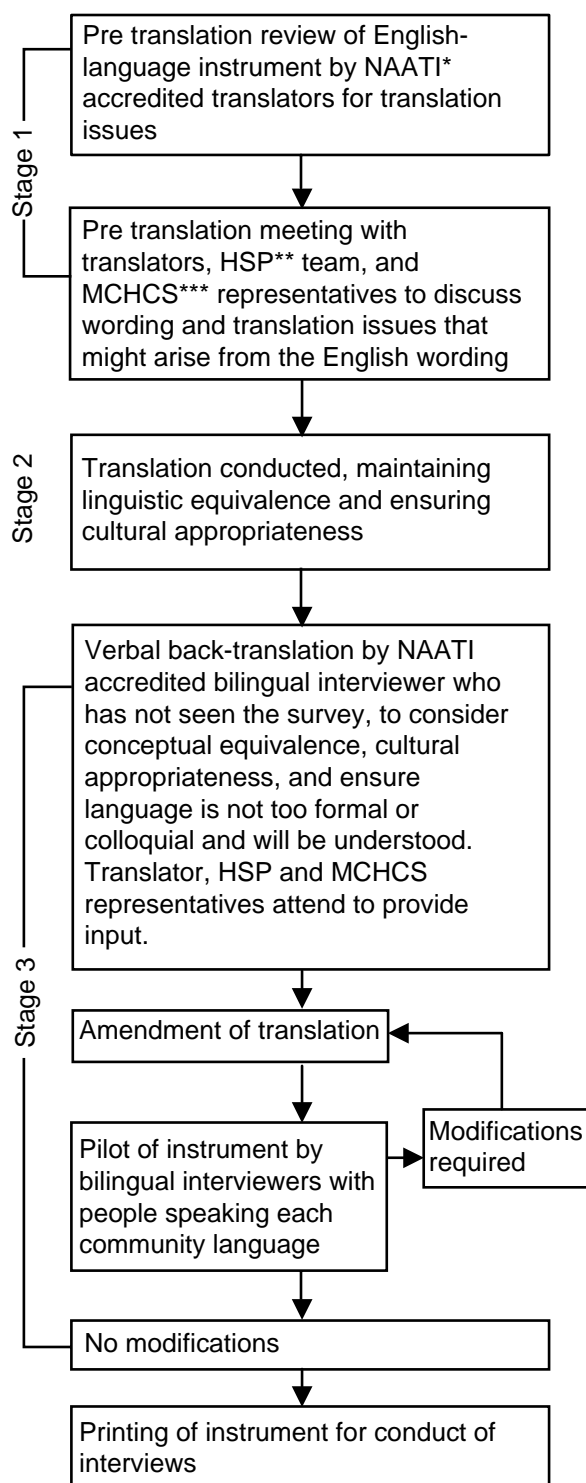
NSW HEALTH SURVEY PROGRAM TRANSLATION MODEL

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

FIGURE 1

NSW HEALTH SURVEY PROGRAM TRANSLATION MODEL



* National Association for the Accreditation of Translators and Interpreters

** Health Survey Program

*** Multicultural Health Communication Service

produced in the following community languages: Arabic, Chinese, Greek, Italian and Vietnamese.

ISSUES AFFECTING THE SUCCESS OF TRANSLATION

Over the years, staff involved in the translation process have identified a range of issues that influence its success:

- maintaining the integrity of the initial instrument through multiple stages of transformation is very difficult. This often involves adapting self-administered survey instruments (often from the United States or United Kingdom) into a telephone interview instrument, then adapting the expression to suit the Australian setting, and finally translating the instrument into the chosen languages;
- the requirement to translate names for, and describe types of health and welfare services varies among NES groups. Familiarity with these services tends to increase with the length of time spent in Australia, regardless of the level of English-language proficiency;
- the level of similarity in language structure between English and the non-English language affects the ease of translation. Translations into European languages such as Italian are more straightforward than translations into Arabic and Asian languages;³
- piloting the translated instrument with native language speakers, who then provide feedback through discussion groups on specific issues such as language formality and the suitability for use over the

BOX 1

Respondents were asked: 'Can you tell me all the reasons why you had your last test for bowel cancer'? One option was 'blood in the stool'.

In Arabic, the word 'stool' was not understood, and there was no equivalent word. Therefore it did not initially get translated. In Greek 'stool' was initially translated as 'the object you sit on'!

Respondents were asked to rate their health on a scale from 1–100.

Arabic and Italian peoples had difficulty with this concept, as from a very early age they are taught to think in terms of 1–10. Even grades at school are given a mark out of 10.

Respondents were asked how many serves of fruit-vegetables they ate every day, with a serve defined in cup measures.

Chinese people did not understand the concept of 'serve' and how big this would be. 'Small bowl' was substituted for 'serve'.

Similarly, Italian and Vietnamese peoples would not use 'serve' or 'cup' but understand a volume measure such as '250mls or quarter of a litre'.

BOX 2

Female respondents were asked '... have you ever heard of a Pap smear test?'

A Pap Smear is sometimes difficult to explain to Arabic-speaking women, as it is not commonly done in Arabic countries. It may also be considered to be an offensive question, especially if women are single or only recently married. In this instance, Arabic-speaking interviewers were provided with backup information about the recommendations for Pap smears to discuss with respondents who did not understand or were offended by the question.

Parents-carers were asked 'In the past three months, how often have you helped out any local group or organisation such as a school, scouts and brownies, a sporting club, or hospital as a volunteer, or other organisation?'

Participation in 'Scouts' and 'Brownies' would be unfamiliar activities to most Chinese language-speaking people. These examples were removed from the translated questionnaire.

telephone, improves the 'friendliness' of the instrument;

- some words and concepts are not transferable from one language and cultural context to another. This may be due to a lack of an equivalent word or phrase, or be due to cultural differences in the way quantities are scaled or measured (Box 1);
- translating language that describes a practice that is not familiar or culturally acceptable can be difficult and may require extra sensitivity (Box 2).

ISSUES NOT ADDRESSED BY THE CURRENT TRANSLATION MODEL

The current translation model used by the NSW Health Survey Program does not fully address three important issues.

First, translation occurs after the English-language instrument is completed, thereby limiting opportunities for minimising:

- ambiguities in the English-language version that might be identified during the processes of translation and back-translation, when the meaning of the instrument is closely scrutinised;
- concepts in the English-language version which are not easily translated from English into other

languages, and therefore become either meaningless or have different meanings to the target populations;

- excessive formality of the translated language.

Second, there is no formal testing of the quality of the translated instruments, in terms of comprehensibility by the target population, content and face validity, reliability and the cultural suitability of any question scales incorporated into the instrument.

Third, other translation models have suggested that two independent translators should undertake the translation, to highlight errors and ambiguous interpretations, and to diminish personal idiosyncrasies. However, adoption of this process would substantially increase the costs of translation.

CONCLUSIONS

Although the translation model used by the NSW Health Survey Program is not perfect, it has yielded translated questionnaires that have been successfully administered to more than 1400 NES respondents in five languages over four surveys.

In the near future, staff of the NSW Multicultural Health Communication Service want to develop a set of standardisation guidelines for the cross-cultural adaptation of health survey instruments, based on the NSW Health Survey Program model. Participation in this process, and consideration of the issues identified in this paper, will contribute to an assessment of how the current model can be improved, without compromising its cost-effectiveness.

REFERENCES

1. Australian Bureau of Statistics. *Population Profile 1991, Vol 7: Demographic & Social indicators NSW*. Canberra: ABS, 1994.
2. Health Promotion Unit. *Interviewing Non English Speaking Respondents: Lessons learned from the 1994 NSW Health Promotion Survey*. Sydney: NSW Department of Health, 1995.
3. Guillemin, F, Bombardier C, and Beaton D. Cross cultural adaptation of health related quality of life measures: Literature review and proposed guidelines. *J Clin Epidemiol* 1993; 46: 1417-1432.
4. Pasick RJ, Sabogal F, Bird JA et al. Problems and progress in translation of health survey questions: The Pathways experience. *Health Educ Q* 1996; 23, S28-S40.
5. McGraw SA, McKinlay JB, Crawford SA, Costa LA, and Cohen DL. Health survey methods with minority populations: Some lessons from recent experience. *Ethn Dis* 1992; 2(3), 273-87. ☒