LETTERS/CORRESPONDANCE

Pertussis in adolescents and adults

To the Editor:
In September 1998, the Canadian Public Health Association and Pasteur Mérimieux Connaught Canada (now Aventis Pasteur Canada) jointly sponsored a workshop of public health experts to discuss pertussis in adolescents and adults. At this workshop, a number of important points were made:

• Pertussis is emerging as an important cause of persistent cough illness in adolescents and adults. This increase in illness is real and is the result of waning immunity among people immunized in childhood.
• Pertussis infection in adolescents and young adults is a critical reservoir for infection in very young infants, who remain vulnerable to the serious sequela of pertussis.
• Acellular pertussis vaccine is safe and effective in adolescents and adults and merits serious consideration for inclusion in Canadian immunization schedules.

Adacel is a combination vaccine that includes acellular pertussis, tetanus and diphtheria components. It was developed in Canada and is produced here by Aventis Pasteur Canada at its Connaught campus. Adacel was licenced in Canada for use in adolescents and adults in 1999.

We have, therefore, an emerging public health problem and a safe and effective vaccine to address it. How many Canadian provinces have incorporated Adacel into their provincial schedules? So far, precisely one – Newfoundland.

Immunization was the single most dramatic public health triumph of the twentieth century. Our provincial and territorial governments should remember that lesson and move quickly to introduce adolescent and adult pertussis immunization.

Richard Schabas, MD, MHSc, FRCP(C)
(Dr. Schabas was formerly Ontario’s Chief Medical Officer of Health and now acts as a consultant for Aventis Pasteur Canada)

Grading the readability of articles

To the Editor:
There are a number of ways to assess the readability of published articles, including some computer programs designed for this purpose. Many of the papers in Advancing the Population Health Agenda (Can J Public Health 1999, Vol.90, Suppl. 1) were difficult to read due to the problem of circumlocution, if not actual sophistry in some instances. It was almost as if some authors wished to mystify rather than to clarify their points of view. As this is hardly in the interests of advancing the population health agenda, I tested this impression through a formal method of assessing readability, utilizing a simple manual approach (the SMOG formula).

The method is as follows:
1. Count 10 consecutive sentences near the beginning of the text to be assessed, 10 in the middle and 10 near the end.
2. In the 30 selected sentences, count every word of three or more syllables. Any string of letters or numerals beginning and ending with a space or punctuation mark should be counted if you can distinguish at least three syllables when you read it aloud in context. If a polysyllabic word is repeated, count each repetition.
3. Estimate the square root of the number of polysyllabic words counted. This is done by taking the square root of the nearest perfect square. For example, if the count is 95, the nearest perfect square is 100, which yields a square root of 10. If the count lies roughly between two perfect squares, choose the lower number. For instance, if the count is 110, take the square root of 100 rather than that of 121.
4. Add 3 to the approximate square root.

This gives the SMOG Grade, which is the reading grade that a person must have reached in order to understand fully the text assessed.

This method takes into account both sentence length and use of complex words. The score reflects an underlying trend in both: a score of 17, for example, reflects a 16% greater use of words of more than two syllables than a score of 16. The present brief commentary has a SMOG grade of 12, against which a score of 17 reflects 2.4 times as many words of more than two syllables.

I applied this approach to five articles in both the Supplement and another recent issue of CJPH (July/August 1999, Vol.90, No.4). The articles were selected as follows: one from close to the beginning of the issue, one from the end, the median article, and two articles adjacent to the median, excluding the article by a non-Canadian author in the Population Health issue. Sentences with bulleted statements were also excluded.

The mean SMOG grade for the five papers examined in this manner from the Population Health Issue was 17 (range 16-18), while for the regular issue it was 15.6 (range 14-17). This reflects a 23% greater use of words of more than two syllables by the authors of the former than authors of the latter. The former distribution appeared to be bimodal (16 and 18), while for the latter unimodal (mode=16), although the sample size is too small to determine whether or not this is a chance finding. In sentences examined from the population issue, one had 62 words, and three had 18 polysyllabic words. In the regular issue, the longest sentence I examined contained 54 words and the top three polysyllabic sentences contained 13, 16, and 17 such words.

Conclusions
The impression that the population health issue was written with longer sentences and more polysyllabic words than the regular issue is thereby verified. Given the suggestion of a bimodal distribution, it is possible that this may reflect a subset of authors in the field. Readers may wish to confirm this finding, perhaps over a larger sample than I have used.

It is unlikely that regular readers will have gained as much from this particular issue as the authors would have liked, assuming that the intent was to clarify rather than to mystify the population health agenda. I would like to suggest that, in addressing this or any other topic, we follow the basics of good language use: words and sentences that are no longer than they need to be to convey a clear idea of the ideas behind them.

Franklin White
Professor & Chair, Community Health Sciences
The Aga Khan University, Karachi, Pakistan

REFERENCE