Cochrane Update
Key issues in Cochrane systematic reviews: cultural and economic considerations

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Background

This is the second of a new series of Cochrane updates for the *Journal of Public Health*. We are very pleased to report that the Cochrane Public Health Review Group (PHRG) was registered on 24 April 2008, has an experienced, committed and innovative team of editors and staff, and looking forward to receiving proposals for new systematic reviews of population level public health interventions. Academics, professionals, practitioners, organizations and research funders are encouraged to contribute to develop a list of 'hot topics' to promote as priorities for review (contact cochrane@vichealth.vic.gov.au with your suggestions).

As previously published, the new Cochrane Public Health Group aims to engage colleagues around the globe in a program of activities that includes building the evidence base of public health programs and policies, systematic reviews appropriate to the needs of users, primary research advocacy and knowledge translation. The group, when operating as a Field within the Cochrane Collaboration, published *Guidelines for Reviews of Health Promotion and Public Health Interventions* (www.ph.cochrane.org/Files/Website%20Documents/HPPH_systematic_review_handbook.pdf) which will now be updated in light of the Group's new editorial status.

The two reviews summarized below present interesting findings and also identify interesting review methodological issues that are worth highlighting. [Please refer to *The Cochrane Library* (www.thecochranelibrary.com) for the full text of reviews of interest.]

Review in highlight: culture-specific programs for children and adults from minority groups who have asthma

This review aimed to determine whether culture-specific asthma programs improve asthma related outcomes in children and adults with asthma who belong to minority groups. The comparisons were both usual care and generic asthma education programs. Although this review is focused primarily on clinical outcomes, it provides an example of how to explore an important determinant of health; culture.

The authors acknowledge the difficulties in making strong links between asthma management and the impact of culture. These difficulties are likely to occur in public health issues. It is therefore important to draw on theory, epidemiological studies and key narrative pieces to help support these links. In this review, the authors acknowledge a number of culture-related influences including symptom perception, understanding of disease and self-management, service delivery issues.

The importance of cultural competence is acknowledged in this review. In attempting to explore the effectiveness of culture-specific programs the authors included interventions that were culturally specific, that is, designed specifically for identified cultural groups. The difference between culturally-modified and culturally-specific interventions was identified as an issue in the discussion section of this review. This is particularly an issue when interventions designed for one cultural group are simply modified for the use in another. The appropriateness needs to be judged on a case by case basis as was demonstrated in this review.

Definitions of social determinants are often complex and this is often made more complex as different trialists use varying definitions to explain similar concepts. The authors of this review acknowledge the need for further research on...
culture-specific interventions to better identify the type and extent of these approaches. This is important not only for asthma management but also for health related interventions.

This review also attempted to include economic data in its analysis of studies. Although economic data were identified as a secondary outcome, one of the three studies reported any relevant data. This study identified a saving of $4675 by using the culturally specific education program. These data highlight the importance of continuing to advocate for, and build economic components into, all studies. The PHRG advocates for the inclusion of economic data into all its reviews as this type of data are incredibly influential in terms of providing direction to policy and practice. The Cochrane Economics Methods Group is able to support review authors to incorporate these data into Cochrane reviews.

The authors concluded that:
Culture-specific programs for adults and children from minority groups with asthma have been found to be more effective than generic programmes in improving some (Quality of Life and asthma knowledge) but not all asthma outcomes. This evidence is limited by the small number of included studies and the lack of reported outcomes. Further trials are required to answer this question conclusively.¹

Review in highlight: financial benefits for child health and well-being in low income or socially disadvantaged families in developed world countries²
This review set out to explore whether additional money provided to socially or economically disadvantaged families could lead to improvements in their children’s health, well-being and educational attainment. The authors recognized the program logic of reducing poverty to improve health and education outcomes, in recognition of epidemiological evidence showing that the association between low income and poor outcome in all dimensions of child health is strong and consistent across countries and time. The importance of this review is well justified in a thorough background section which highlights how inequities in socio-economic resources result in inequities in early childhood development.

In recognition of the complex interactions between many of the factors relating to disadvantage,³ the authors sought to extract information on the characteristics of the intervention (such as intensity and method of delivery of intervention) and population characteristics (such as family composition, age and gender of children, the family’s socio-economic position, country and setting (e.g. rural, urban or region). The authors intended to use this information to conduct sub-group analyses to help explain any heterogeneity in the results. They also rightly sort to conduct subgroup analyses of underlying health/social welfare provision (e.g. countries with universal healthcare systems in place versus those without), and effects of co-interventions and socio-economic position but unfortunately data were not available to allow these. All these factors can help readers to judge applicability to their low contexts. The authors acknowledge that they were ‘not able to examine the effect of conditional receipt of money’, due to a lack of data, and thus the impact of increasing family choice through income increases, core to the rationale for the review, was not able to be explored. Absence of these valuable data should serve to highlight to funders of these initiatives and associated research the importance of resourcing programs adequately to ensure thorough data collection to allow the ‘bigger picture’ to inform improvements to these types of programs.

The review also illustrates the judgements that must be made by the authors in identifying appropriate outcomes that will determine effectiveness. The authors explain their decision to exclude a study with the only child-related outcome being placement in foster care, as this outcome could be beneficial (if moving from unsafe to a safe environment, for example) but may also be harmful (as it could reflect the result of homelessness). This highlights why it is crucial to involve those with content knowledge in the development decisions of the review. Those who are not intricately familiar with the issues can make assumptions about causation which can ultimately affect the accuracy of the conclusions and recommendations from the review.

This review obviously gained value from having an economist on the authorship team, and the reference to the economic theories within the Discussion section added greatly to explain why a seemingly intuitive intervention may not have delivered on the expected outcomes. The authors were also very explicit in stating the inability to draw conclusions from the review findings, and emphasized the difference between ‘no evidence of effect’ (as in this review) and ‘evidence of no effect’.

The authors concluded that:
On the basis of current evidence we can not state unequivocally whether financial benefits delivered as an intervention are effective at improving child health or wellbeing in the short term. Our conclusions are limited by the fact that most of the studies had small effects on total household income and that while no conditions were attached to how money was spent, all studies included strict conditions for receipt of payments. We note particular concerns by some authors that sanctions and conditions (such as working hours) placed on families may increase family stress.²
New reviews and protocols of relevance to health promotion and public health from Issue 2 and Issue 3, 2008 of The Cochrane Library

Reviews
Culturally appropriate health education for type 2 diabetes mellitus in ethnic minority groups
Dietary advice for the prevention of type 2 diabetes mellitus in adults
Printed educational materials: effects on professional practice and health care outcomes
Antenatal breast examination for promoting breastfeeding
Exercise or exercise and diet for preventing type 2 diabetes mellitus
Influenza vaccines for preventing coronary heart disease
Psychosocial interventions for prevention of psychological disorders in law enforcement officers

Financial benefits for child health and well-being in low-income or socially disadvantaged families in developed world countries
Household interventions for prevention of domestic lead exposure in children
Opportunities provision for preventing youth gang involvement for children and young people (7-16)
Strategies for communicating contraceptive effectiveness

Protocols
The effect of social franchising on access to and quality of health services in low- and middle-income countries
Internet-based interventions for smoking cessation
Interventions for preventing falls in older people living in the community
Interventions to improve excreta disposal for preventing diarrhoea
Exercise for older depressed people
Health examination for preventing occupational injuries and disease in workers
Effects of communicating DNA-based disease risk estimates on risk-reducing behaviours
Pacifier use versus no pacifier use in breastfeeding term infants for increasing duration of breastfeeding
Prevention of suicide and suicidal behaviour in adolescents
Screening for gestational diabetes mellitus for improving maternal and infant health
Theory-based interventions for contraception

References
1 Bailey EJ, Kruske SG, Morris PS, Cates CJ, Chang AB. Culture-specific programs for children and adults from minority groups who have asthma. Cochrane Database of Systematic Reviews 2008 (Issue 2). Art. no. CD006580. DOI: 10.1002/14651858.CD006580.pub2.