LITERACY and HUMAN HEALTH
The Role of Education

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Over the last two decades it has become clear that there is a strong relationship between literacy and health. We know for example, that people who are less literate are more likely to have poorer mental and physical health than those who are more literate.[1] We also know that people with lower levels of literacy have difficulty reading medication prescriptions, baby formula instructions, safety information and other written material, which has a direct effect on their health and safety. In addition, the research suggests that literacy has strong indirect effects on health by influencing the kinds of jobs people are able to obtain and their income, which, in turn, has a large impact on both their health and quality of life. So it seems clear that general levels of literacy can affect the health of individuals and populations.

It is also clear that this is a large problem in Canada, where a high percentage of the population appears to have literacy deficits. According to the last national literacy survey, almost half (48%) of Canadians have some difficulty reading materials that they encounter in their everyday lives.[2] If the newest survey, to be released shortly, shows levels of reading ability in the same ballpark, we will continue to have cause for concern, not only about the impact of low literacy on the health of Canadians, but about its economic impact as well.

In addition, many people, whether or not they have basic literacy skills, have particular problems obtaining access to information, understanding it and communicating it in different health contexts, whether it be in the hospital or doctor's office, the grocery store, on the world-wide web, television, radio or in newspapers. This ability to obtain and process information has been called "health literacy" and was recently the subject of a U.S. Institute of Medicine report.[3] According to the report, which was based mainly on US studies, among other things, adults with limited health literacy report poorer health status than those with higher health literacy.[4] The same is likely true in Canada, although only a few studies have been done here.[5]

The Institute of Medicine report also identified the education system as one of three points of intervention to address problems related to health literacy and presented both findings and recommendations for the educational system (see Figure 1). Although these findings and recommendations were directed at the educational system in the United States, many are applicable to Canada as well.

Not only is the educational system responsible for improving the general literacy levels of Canadians, but it also bears some responsibility for improving their levels of health literacy.

Findings of the Institute of Medicine Report Regarding the Education System

The report's first finding related to the education system was that "significant obstacles and barriers to successful health literacy education exist in K-12 education programs."[6] These barriers include insufficient time in the curriculum for health education, lack of continuity in health education programs, inadequate training of teachers in health education, and insufficient understanding and support of health education by the public, politicians and educators. In addition, the committee noted that the situation was deteriorating, with a decrease over the last few years in the numbers of schools requiring students to take health education. There is reason to believe that the same obstacles and trends are present in Canada. For example, a 1999 study found that only one fifth of Canadian school districts reported that health education was mandatory in grade 12.[7] The Institute

EN BREF De toute évidence, l'éducation a un rôle crucial à jouer pour promouvoir la littératie et la santé. Non seulement le système scolaire doit-il améliorer le niveau moyen d'alphabétisme des Canadiens et des Canadiennes, mais il doit également accroître leur littératie en matière de santé. Cela dit, un récent rapport du U.S. Institute of Medicine indique que le système de santé et le public en général ont aussi un rôle important à jouer à ce propos. Le système de santé en particulier se doit de contribuer à l'amélioration de la littératie en matière de santé par l'entremise des ses établissements et des soins qu'ils procurent.

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of Medicine report also noted that relatively few colleges and universities in the United States require or provide education about health.[8] The same is true here as well.

The IOM committee also found that "[h]ealth professionals and staff have limited education, training, continuing education, and practice opportunities to develop skills for improving health literacy."[9] This lack of attention to health literacy reflects the large number of demands for time and space in the curricula of health professional schools and continuing education programs. The same is true in Canada.

On the other hand, the committee found that opportunities do exist in adult education programs for increasing both literacy and health literacy skills. This conclusion was based on the fact that health is a topic of high interest to adult learners, that it is more effective to use real life examples in training programs, and that there is "a desire on the part of adult learners and adult education programs to form partnerships with health communities."[10] Such opportunities also exist in Canada.

Thus, although there are some opportunities to improve the health literacy levels of students though health education, there are many obstacles to doing so both in the United States and Canada. Given this, what can be done to improve the situation?

The IOM report included the following recommendations:

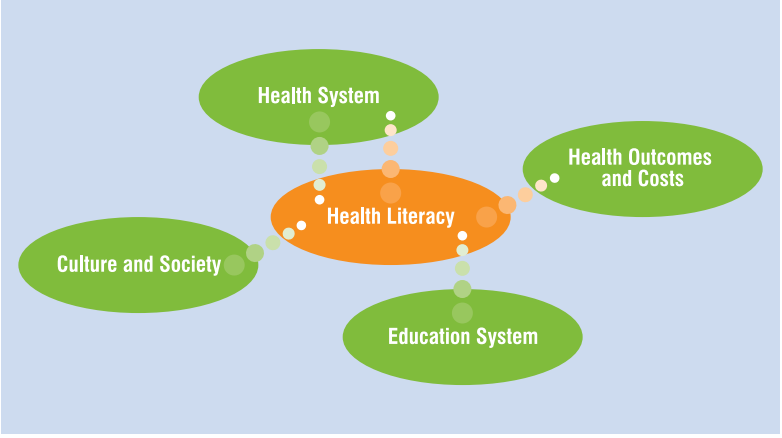
1. Accreditation requirements for all public and private educational institutions should require implementation of the National Health Education Standards.[11]
2. Educators should take advantage of the opportunity provided by existing reading, writing, oral language skills, and mathematics curricula to incorporate health-related tasks, materials and examples into existing lesson plans.
3. Demonstration projects should be funded in each state to attain the National Health Education Standards and to meet basic literacy requirements as they apply to health literacy.
4. Task forces comprised of appropriate education, health, and public policy experts should be set up to delineate specific, feasible, and effective actions relevant agencies could take to improve health literacy though the nation's K-12 schools, colleges and universities and adult and vocational education.
5. Research designed to assess the effectiveness of different models of combining health literacy with basic literacy and instruction should be funded.
6. Professional schools and professional continuing education programs in health and related fields should incorporate health literacy into their curricula and areas of competence.[12]

At least some of these recommendations are relevant to Canada. For example, it might be useful to develop some standards for health education in Canada similar to the National Health Education Standards in the United States. If we do so, however – learning from the American failure to implement the standards – we should ensure that mechanisms are put in place to enforce them. It also may be a good idea to encourage educators to take advantage of the opportunity provided by existing curricula to incorporate health-related elements into existing lesson plans, although this represents one more demand on teachers and schools and would therefore require the involvement of Departments of Education and Health, schools, teachers and students across the country.

The establishment of multi-disciplinary task forces to identify how relevant agencies could help improve health literacy though the nation's K-12 schools, colleges and universities and adult and vocational education also seems like a reasonable idea, although we will need to find a mechanism though which these efforts can be coordinated. It also seems reasonable to encourage professional schools and continuing education programs in health and related fields to incorporate health literacy into their curricula and areas of competence and to support them in their efforts; again, the mechanism though which this could be accomplished would need to be identified. Finally, the recommendations regarding research and demonstration projects may be worthwhile here in Canada, although we will need to convince the national research funding agencies that this is an investment worth making.

All of these recommendations suggest possible courses of action that may be worth considering in Canada, where they would require discussion in appropriate educational and health settings.

Figure 1: Health Literacy Framework



The Current Canadian Context

Fortunately, the time may be right to explore efforts to improve both the general literacy and the health literacy of Canadians. The Canadian Public Health Association, in partnership with the National Literacy and Health Program, and Human Resources and Skills Development Canada, recently

held the Second Canadian Literacy and Health Conference. This conference involved participants from health, education, community service, academic communities and learner communities, and it produced recommendations designed to improve both literacy and health literacy levels. Among them is a recommendation that "the Council of Ministers of Education and the Deputy Ministers of Health Joint Committee on Education and Health champion an inter-disciplinary approach to health and literacy programs which integrate parenting, nutrition, literacy and community development."[13]

The very existence of the Joint Committee on Education and Health is an indication that the time is right for collaborative efforts between education and health related to literacy and health. Currently, this newly formed committee is developing a comprehensive approach to school health in Canada, which includes a focus on health literacy.

A second encouraging development is the recent establishment of a National School Health Research Network in Canada. This initiative grew out of a project that was funded by the Canadian Institutes of Health Research and led by myself and Paul Cappon (who at the time was the Director-General of the Council of Ministers of Education and has since become the CEO and President of the Canadian Council on Learning). The Network provides an unparalleled opportunity for researchers in Canada to collaborate with each other and the educational system in conducting research that will support and improve school health initiatives, including those related to literacy and health. The Canadian Council on Learning could also play an important role in developing partnerships between education and health researchers and practitioners.

Thus, there are now in Canada new opportunities for enhancing the relationship between education and health – opportunities that could improve the contribution of education to health, as well as health to education.

The Role of Education in Literacy and Health

Clearly education has a critical role to play in literacy and health. Not only is the educational system responsible for improving the general literacy levels of Canadians, but it also bears some responsibility for improving their levels of health literacy. That said, the Institute of Medicine conceptual framework (Figure 1) also makes it clear that both the "Health System" and "Society" at large have a significant role to play as well. The health system in particular – including both public health and health care – has a major responsibility for addressing "health literacy". As the I.O.M. report makes clear, "health literacy" is not just the responsibility of individuals; it is also the responsibility of the "health contexts" in which people confront information demands that will affect their health.

Barriers to successful health literacy education include insufficient time in the curriculum for health education, lack of continuity in health education programs, inadequate training of teachers in health education, and insufficient understanding and support of health education by the public, politicians and educators.

Although the "health context" must provide people with information that is accessible, clear, and understandable at all levels of health literacy, the education system can also make a contribution. For example, the "education context" can provide opportunities to develop the communication skills of health professionals and others who serve the public as well as improve the literacy and health literacy skills of the public through basic and adult education.

At the same time, it is important to recognize that the health system can make a larger contribution to the education system than it has so far. The IOM committee recommendations include the suggestion that health examples be integrated into educational curricula for the benefit of students; health care professionals can contribute to such initiatives by looking for opportunities to provide examples in a form that is compatible with the demands of the curriculum. Health practitioners can also make themselves more accessible to schools and continuing education programs as resources. In addition, health researchers should be more open to forming partnerships with educational researchers in looking not only at the impact of education on health, but of health on learning.

There is a great opportunity to form active and meaningful partnerships between education and health to improve both learning and health outcomes as represented in the concepts of "Literacy" and "Health Literacy". I hope that we take full advantage of it. ★

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Notes

1 Much of the information in the first two paragraphs has been taken from a paper by the author and Barbara Ronson which can be found at http://www.igh.ualberta.ca/RHD/Synthesis/Literacy.htm.

2 Statistics Canada. (1996). *Reading the Future: a Portrait of Literacy in Canada.* http://www.nald.ca/nls/ials/ialsreps/high1.htm

3 See Institute of Medicine, Health Literacy, *A Prescription to End Confusion* (Washington: The National Academies Press, 2004) www.nap. edu.

4 Ibid,, p.83

5 J. L. Smith and J. Haggerty, "Literacy in Primary Care Populations: Is it a Problem?" *Canadian Journal of Public Health*, 94, no.6 (2003): 408-412.

6 I.O.M., 148

7 D. McCall, R. Beazley, M. Doherty-Poirier, C. Lovato, D. McKinnon, J. Otis, and M. Shannon, *Schools, Public Health, Sexuality and HIV: A Status Report* (Toronto: Council of Ministers of Education, 1995).

8 I.O.M., 147.

9 I.O.M., 160.

10 I.O.M., 157.

11 These are standards developed by the Joint Committee on National Health Education Standards in 1995.

12 I.O.M., 161. It should be noted that this is a slightly edited version of the recommendations and that the views expressed in this paper are those of the author and not necessarily the Institute of Medicine or the committee.

13 Deborah Gordon El-Bihbety, *Report Back on Recommendations,* Second Canadian Conference on Literacy and Health, October 19, 2004.