

support these claims. However, by failing to address the opposing, conventional arguments, Campbell leaves the scrupulous reader unconvinced of the veracity of his assertions. In many of these areas, further research is certainly needed for Campbell's claims to be accepted as facts.

Despite the book's shortcomings, one of the most valuable sections is the final chapter wherein Campbell discusses the politics of nutrition, notably the unhealthy ties between the food production industry and government and the immense power of the dairy and agricultural industries. These revelations may come as a surprise to many readers, and serve as a useful reminder to be aware of the source of our nutrition-related information. In these final chapters, Campbell also explores the resistance of many physicians to the idea that the single most important treatment for many Western chronic diseases may be as simple as changing what we eat. As we progress in our understanding of the crucial ties between nutrition and health, one hopes that this attitude will be less pervasive.

The China Study sends a clear message: our diets are killing us. While some of Campbell's assertions lack critical analysis, there is certainly validity to the notion that a whole-foods, plant-based diet—when compared to a standard Western diet—can improve health with respect to a variety of diseases. While following such dietary measures may seem extreme to some, the dire state of health in North America suggests they may be necessary. I would recommend this book to future health care professionals as it draws attention to the often overlooked role of nutrition in disease prevention and treatment. As health care professionals, we have a responsibility to provide the best possible care to our patients; Campbell suggests that in many cases, the best possible care involves three simple things: breakfast, lunch, and dinner. 🙌

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The Impact of Low Literacy on Health

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ABSTRACT

Forty eight percent of Canadians have been reported to have literacy below the minimum level required for full societal function, which directly impacts multiple aspects of their lives including mitigating healthcare accessibility, utilization, and health status. While effective communication can temporarily overcome the literacy barrier,⁶ a more comprehensive approach involving understanding and identifying those who struggle with literacy is necessary for long term improvement and efficient prevention of miscommunication. As there is currently no gold standard for these situations, this article makes several recommendations on how primary care providers and community members alike can enhance the care of people with low literacy.

KEYWORDS: *low literacy, healthcare professional*

The word 'literacy' is empirically defined as the ability to read and write. However, when describing one's functionality in a specific area, literacy measures the amount of knowledge one possesses which involves an individual's comprehension of language, integration of information, and expression of thought.

For example, consider the following sentence: "The two different fields move in parallel with the particle but with perpendicular vectors." If literacy can be attained simply through reading and writing, then most literate individuals should be able

to understand the previous sentence. However, readers without a background in optics would not be able to identify the material as the physics of light. Unfortunately, a similar scenario occurs in healthcare everyday, as roughly half of Canadians struggle with understanding what doctors consider to be 'plain English'.

The International Adult Literacy and Skills Survey (IALSS) measured the literacy levels of 23,000 Canadian adults on a scale between one and five, with the score of three being the minimum score required to function in society. The survey showed that 22 % of adult Canadians scored one, which is the lowest level of English proficiency.¹ IALSS indicated that these individuals struggled with tasks such as understanding the instructions

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Roughly half of Canadians struggle with understanding what doctors consider to be 'plain English'.

on medication bottles to determine the proper dosage. Another 26 % of adult Canadians scored two and could only manage to understand the most basic of written English when it was clearly presented and explained.¹ This level of literacy may make it difficult for them to understand complex treatment regimens that require a combination of multiple modes and frequencies of therapy. Literature has demonstrated that individuals with low literacy are often less compliant with therapies due to inadequate communication between the healthcare professional and the patient.²

As the IALSS results suggest, 48 % of Canadians have below minimal levels of literacy.¹ As low literacy correlates with lower socioeconomic status, these individuals are more prone to poorer general health.¹⁻³ In fact, a report by the Canadian Council on Learning suggested that low literacy correlates to lower overall health status, regardless of how health is measured.² Indeed, literacy and education were identified as the third determinant of health by the Public Health Agency of Canada.⁴ Clearly if left unattended, the literacy crisis will have a grim prognosis on the health of Canadians. Though there are multiple societal components that must be tackled in order to alleviate the issue of low literacy, the following recommendations may help family members, community members, and primary care professionals improve the lives of patients with low literacy.

Understand that the literacy crisis in our society is real and that it impacts health. Simply being aware that roughly half of the population has some degree of difficulty understanding medical information is an important first step.¹ In the long run, this can contribute to dismantling any communication barriers with people who have low literacy.

Identify patients with low literacy. Many would not openly admit having difficulty in understanding instructions and recommendations if they feel that doing so would lead to embarrassment. It is the healthcare professional's responsibility to foster a relationship of trust and a culture of honesty with patients by creating a non-judgmental environment that encourages open discussions. Just like any other symptoms that a patient can present with, low literacy is an issue that can impede care and lead to poorer health status, and thus it should be promptly identified and addressed.^{1,2,5}

Learn to speak plain language. This task is perhaps the most difficult to accomplish, as the definition of 'plain language' depends on context. Without honest patient feedback, there is no way to assess whether medical information has been properly relayed. Therefore, when communicating with patients, one should err on the side of safety and use plain sentences, clarity of speech, and expressive body language to ensure that the appropriate message is conveyed. Of course, since Canada is a

multicultural country with both English and French as its national languages, one may not always be proficient in the same language as the patient. In regions where this is common, workplaces and communities should identify individuals who are able to assist in translation. Effective communication is directly correlated to improved medical practice and can contribute to overcoming the literacy barrier in any setting.^{6,7}

Be an advocate for individuals with low literacy. Healthcare professionals and community members alike should always consider an individual's unique circumstance when making any lifestyle or health related recommendations as low literacy often arises from a variety of causes including late immigration, family circumstances, cultural limitations, genetic endowment, and social barriers.¹ By establishing a trusting and respectful relationship, individuals can overcome any embarrassment and actively seek clarification when needed.⁷

Learn about and recommend available resources to help people improve their literacy. There are several provincial and federal organizations, including those listed in Rootman et al.'s report, that provide free private tutoring and classroom lectures for individuals struggling with literacy.⁸ If comfortable, one should actively inform those with low literacy of these resources. The key is to use non-judgmental communication and a positive attitude to help those with low literacy understand the impact of literacy and education on health,⁵ as well as work with them to establish a tradition of lifelong learning.⁸ By practicing prevention and intervening with low literacy, healthcare professionals and community supporters can help improve an individual's literacy. This improvement will not only benefit his or her health, but will also impact other aspects of his or her life, such as employment and social acceptance.^{1,2}

Unfortunately, there is no immediate solution for low literacy in Canada. While Canada has taken an important first step by recognizing literacy as a strong determinant of health, a variety of barriers still exist that hinder effective intervention, such as the lack of sufficient funding and public resources.⁸ However, one can ameliorate the negative effects of low literacy by understanding its prevalence and detrimental impact on health and effectively identifying those with low literacy who need assistance. Physicians and nurses interested in community practice can establish social support by approaching communities or families and educating them on health literacy. By actively taking a role in improving our society's literacy rates, healthcare professionals and community members might be able to directly influence the population's health and wellbeing. 

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Multi-Disciplinary Health Prevention: St. Paul’s Hospital Healthy Heart Program

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ABSTRACT

The Healthy Heart Program is a team-based interdisciplinary program focused on the primary and secondary prevention of heart disease. Patients are incorporated into a health care team consisting of a physician, nurse educator, dietitian, pharmacist, exercise therapist, and counselor. The multi-disciplinary aspect of the program highlights that heart disease is a multi-faceted problem—risk factors cannot be addressed simply with drugs or diet alone, but only through coordinated pharmacologic and lifestyle changes. The Healthy Heart Program can serve as an invaluable model for clinics aimed at the prevention and management of other chronic diseases.

KEYWORDS: *multi-disciplinary, health prevention, cardiovascular*

In a time with rapidly escalating health care costs, it is clear that the best way to address health resource allocation is not merely pouring money into disease treatments. Instead, by investing in programs that encourage healthy living, we can prevent many of the chronic diseases that plague our society today. Treating disease is more expensive than preventing its onset, and therefore it makes good economic sense to support prevention programs that offer long-term outcomes.¹ Moreover, the efficacy of lifestyle changes are reflected in clinical practice guidelines, such as those of the Canadian Working Group on Hypercholesterolemia and Other Dyslipidemias.^{2,3}

As one of the greatest burdens on our health care system and the leading cause of death in North America, heart disease has a direct impact on 1.3 million Canadians and costs taxpayers over \$22.2 billion per year.⁴ Public awareness has significantly increased in recent years, thanks to non-profit organizations and

“ Many patients are often surprised to learn which foods contribute to their weight, and that most of these foods can be substituted for healthier alternatives.

public health organizations garnering interest in heart disease and promoting heart health. Still, 9 in 10 Canadians have a risk factor for cardiovascular disease, including hypertension, diabetes, high cholesterol, obesity, and physical inactivity.

HEALTHY HEART PROGRAM

Prevention and lifestyle modifications seem to be the buzzwords in heart health, and we are fortunate to be able to offer the Healthy

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