

Report of the Pharmaceutical Inquiry of Ontario Alternative Therapies, July 1990

Recently, the Pharmaceutical Inquiry of Ontario released its report entitled "Prescriptions for Health". The study was chaired by Dr. Frederick Lowy, former dean of medicine. After nearly two years the committee made 147 recommendations. They concluded, "... we are convinced that these recommendations, when implemented, will contribute toward the achievement of accessible, higher quality treatment for those Ontarians who need prescription drugs and will help eliminate unnecessary public expenditure."

I found Chapter X, "Alternative Therapies", the most exciting. With permission, this is being reprinted in this journal.

Dr. Lowy's committee estimates that if the advocated nutritional treatments for five conditions were found to be as effective as traditional treatment, and assuming that nutritional treatment were substituted for all Ontarians suffering from these five conditions, an annual saving of \$250 million could be achieved with less risk to patients from toxicity and side effects. The five conditions are benign prostatic hypertrophy, childhood asthma, osteoarthritis, angina pectoris and related cardiovascular problems, and elevated cholesterol levels. I would also add there would also be a better quality of life for these patients.

Dr. Lowy's committee states, "Health professionals must turn an open mind to the possibility that minor nutritional deficiencies may cause or contribute to illnesses that are not now regarded as nutritional disorders." In my opinion, this is already occurring and will be accelerated by this report.

Orthomolecular physicians will be pleased with this report, but we are also challenged. We must continue to provide scientific data — both clinical and laboratory — to support our conclusions, to amplify them, and to help determine the physiology and chemistry underlying disease, so they can be treated more successfully.

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While the Committee was not asked to look at alternatives to prescription drugs, a number of submissions called attention to this issue. The Inquiry does not attempt a systematic examination of alternatives but concludes that such a study, conducted in accordance with accepted scientific standards, is merited in some areas.

Alternatives to Prescription Drug Products

In 1987 three significant reports relating to health care were issued.¹ All emphasized the key roles of health promotion and disease prevention. The Evans report addressed the role of the individual consumer in making healthful lifestyle decisions. The Podborsky report called attention to the importance of adequate nutrition, exercise and recreation in promoting health, and of eliminating smoking and alcohol and drug abuse in preventing illness. The Spasoff report, in recommending health goals for Ontario, also emphasized the need to encourage behaviours that support health. Drawing on these reports and on a vast, worldwide literature that supports their recommendations, the Premier's Council on Health Strategy last year outlined strategic objectives for the province.² The first objective is to shift the emphasis in health care from treatment after the fact to health promotion and disease prevention.

These reports have in common an appeal to all Ontarians to look beyond the traditional health care services to what they themselves can do to remain healthy. Traditional services offered by Ontario's extensive system of hospitals, home care services, clinics and private professional offices are mostly geared to treat illness once it occurs. Increasingly, it is recognized that Ontarians have a responsibility to do what they can to protect their health and to prevent illness.

Prescription drugs do not specifically accomplish this aim. Drugs primarily help patients who are already sick or are at risk of becoming sick. Powerful drugs are especially useful for those persons who have acute illnesses or are faced with life threatening conditions. However, the majority of prescription drugs are now used to treat chronic conditions, many of which do not immediately threaten life or functioning. Many drugs are prescribed for ongoing symptom relief. Yet drugs are, of course, not innocuous; the reason some require a prescription is that, as chemicals foreign to the body, they carry the risk of toxic side-effects. For example, adverse drug reactions are estimated to account for or be associated with 20 per cent of hospital admissions in the elderly. Further, although many physicians rely heavily on prescription drugs to help their patients, it is estimated that 50 per cent of prescriptions are not used by consumers exactly as directed.

It seems important, therefore, to consider alternatives to prescription drugs when the indications for drugs are not specific and when other effective and/or safer treatment methods might help. A detailed examination of alternatives to prescription drugs is outside the mandate of this Inquiry. However, it is important to stress that alternatives do exist and, frequently, are preferable.

For example, some acute and a few chronic conditions benefit from surgical approaches or physiotherapy and other physical treatments. Often attention to psychological and social factors is most important. It is now well recognized that the distinction between the mind and the body is artificial — they are intimately connected and influence each other. Physical well-being is often threatened by emotional conflicts that are not resolved and mental health is threatened by physical illness. Professional psychotherapy, relaxation techniques, planned rest and recreation and spiritual guidance all have their place in helping many people cope with chronic health problems. The beneficial effects of regular physical activity have been demonstrated repeatedly, not only in the promotion of health but also in the management of a number of

chronic illnesses. The many links between diet and disease are now frequently emphasized in news media reports and are increasingly recognized by health professionals and the public.

Although, as indicated earlier, this Inquiry was not asked to look at alternatives to prescription drugs, consideration of the subject was inevitable. A number of submissions to the Inquiry called attention to this issue and, of course, there is a large body of professional and lay literature on the dangers of thinking that there is "a pill for every ill". It is not possible in this report to attempt a systematic examination of alternatives to prescription drugs or to estimate health or economic impacts of promoting their use. However, we believe that a systematic examination, conducted in accordance with accepted scientific standards, is merited. As an example of areas that deserve more careful examination by both experts and policy makers, a closer look at the role of nutrition in health and illness follows.

The rationale for considering nutrition is the assumption that most nutritional products used in moderation have no harmful side effects; many contribute to improved functioning of the body and not just suppression of symptoms; and most are less costly than prescription drugs. A need exists for a series of studies to determine what funds could be saved by raising awareness among physicians about nutrition and nutritional products and what the benefits of nutritional treatments might be.

One case in point is the management of high cholesterol levels. The prescription drugs for high blood cholesterol are fairly expensive and have known adverse side effects, as well as potential but unknown long-term side effects. The alternative nutritional product, Vitamin B₃, or Niacin, costs one-tenth, depending on the preparation. With the new time-release Niacin, the side effects of flushing and transient itchy rash have been practically eliminated although the cost is higher. The cost saving, were physicians persuaded to use Niacin instead of the newer drugs, could be millions of dollars. In the recent well-publicized study on treatment of high

cholesterol, released under the auspices of the OMA and the MOH, no mention was made of the cost differential between Niacin and other comparable methods of treatment.

There are two aspects to nutrition. The first concerns diet and healthy eating habits; the second is nutritional pharmacology, which is the deliberate use of higher than normal amounts of minerals, vitamins, fatty acids, and amino acids as treatments for specific illnesses.

As mentioned, the role of good diet in promoting health and poor diet in raising the risk for some diseases is increasingly recognized. This recognition is yielding interesting information. For example, a study, entitled "Superior nutritional care cuts hospital costs," was published in 1988 by the Nutritional Care Management Institute of Chicago. Pulling together dozens of studies in numerous hospitals with thousands of patients, it concluded that just by improving the intake of calories and protein by hospital patients, the average length of stay can be drastically cut down and the cost per patient can be reduced by 50 per cent.

Bad dietary practice has been incriminated as a cause of a great many illnesses of western man: gastrointestinal diseases, cardiovascular disease and metabolic diseases were all relatively rare prior to the 1900s; diverticulosis and ischemic heart disease were uncommon until after World War II. The U.S. Surgeon General has recently emphasized that we eat too much fat, salt and sugar.

The average diet in North America today contains 18 per cent of calories in refined sugar, a further 18 per cent in refined white flour and another 17 per cent of generally synthetic or refined fats. The immense change in diet over the last 100 years, compared to the previous hundreds of thousands of years, seems to be taking its toll in the form of a wide variety of illnesses. Today's three main chronic diseases — heart disease, cancer and stroke — were much less common 100 years ago. With the huge amounts of money spent on heroic attempts to deal with these illnesses when they become acute, it would seem prudent to redouble attempts at prevention. One way to do this is to expand support

for large scale long-term studies on dietary habits and their relation to illness.

In order to deal with the dietary aspects of nutrition, education of consumers, physicians and other health professionals is necessary. If Ontarians rush to see the doctor or rush to obtain a prescription with every minor complaint, it puts a terrific overload on the health care system. The signposts for future consumer education exist today in the grassroots surge to purchase books on diet and health. Governments are making attempts to bring the food companies into line by requiring proper labelling of ingredients. As yet there are no tough laws dealing with unnecessarily high sugar and fat content in the diet, although it may be that such legislation is coming. In the meantime, vigorous education of the consumer is required so that the consequences of poor dietary habits are understood.

Books are continually being published describing what could be termed "clinical nutritional medicine", in which doctors promote the nutritional approach to combat many chronic, non-life threatening diseases. These nutritional remedies, even though not sponsored by drug companies and medical organizations, are being prescribed, where appropriate, by a growing number of reputable physicians.

This awareness has not been directed top down from the regulatory authorities, the medical journals, the medical associations or the university faculties, but has been stimulated by a bottom up demand from consumers anxious to maintain or regain health without drugs. This grass roots demand is expressed in the growth of the health food chains, the modern preoccupation with diet and exercise, the awareness and interest in acupuncture and herbal medicine, the increased interest in chiropractic, the use of focused nutritional remedies and, in fact, all the realms of holistic and alternative medicine.

Increased public interest in "alternative medicine" is not abating and is a result, to a large extent, of both the failure of traditional medicine to take sufficient interest in and adequately deal with chronic disease and the continuing education of the populace through the media, bookstores, and word of mouth that alternative

methods can be helpful.

Advocates of nutritional pharmacology make some important points:

- Despite the recent interest in nutrition there is still widespread ignorance about its relationship to health and illness.

- Traditional western scientific medicine has, until recently, largely ignored this area. Departments of nutritional science are at last gaining higher profile and credibility in medical schools. Nevertheless the education of physicians regarding the diet-illness link remains inadequate; this is even more true with respect to the potential benefits of nutritional pharmacology. A recent comprehensive report "The Impact of Nutrition, Environment and Lifestyle on the Health of Americans" is likely to change this. This 650 page "Kellogg Report", by J. D. Beasley and J. J. Swift, was published in 1989 after seven years of preparation and \$3 million support from the Kellogg and Ford foundations in the U.S.

- There are at least 50 essential nutrients — substances the body must get through the diet. These nutrients are water; carbohydrates for energy; fibre; 10 essential amino acids from which proteins are formed; three essential fatty acids; six major minerals and 15 trace minerals; four fat soluble vitamins and nine water soluble vitamins. Ordinarily these essential nutrients are obtained by a healthy person from an adequate diet. Whereas it is universally accepted that major deficiencies of these nutrients can cause disease (for example, deficiencies of iodine causing hypothyroidism, of ascorbic acid causing scurvy, of thiamine causing beri-beri), it has not yet been widely accepted, or definitively proven, that minor deficiencies of nutrients contribute to many chronic physical and emotional disorders.

- Although recommended dietary allowances — the levels of essential nutrients considered adequate — are valid for the *average* adult, there is a wide biological variation in the need of individuals for specific nutrients. Some persons have higher requirements for certain nutrients and for them an average diet can be inadequate in some respects. This is compounded by the processing and refining of the food products we

purchase, which often contain lower concentrations of essential nutrients than the natural products. As a result, many Ontarians may have deficiencies of essential nutrients that go unrecognized yet could reduce their resistance to illness, retard their rehabilitation after other diseases are treated and, in some cases, produce illness directly.

- While anecdotal accounts of successful Healing using nutritional treatments abound, there are relatively few large-scale studies of the therapeutic potential of nutrients. Pharmaceutical manufacturers, which do most clinical drug trials, have little incentive to fund such studies although academic centres have shown some interest.

Unfortunately, serious advocates of "alternative" treatments have become associated in the minds of many with anti-establishment, fringe-culture movements. As a result their work is often prematurely dismissed as quackery and not subjected to serious scrutiny and to adequate clinical trials. The neglect of nutritional findings is not new. Although Sir Richard Hawkins wrote about a cure for scurvy "with sower oranges and lemmons" in 1593, his ideas were not embraced by the Royal Navy until 1795 — 200 years later — and the scientific basis of vitamin C treatment was not established until this century.

If it were possible to treat some disorders with inexpensive nutrients which have few and relatively mild side-effects, rather than expensive and relatively more toxic pharmaceutical products, this would clearly be advantageous. Hippocrates (5th century B.C.) said "Let thy food be thy medicine and thy medicine be thy food" and Maimonides (12th century A.D.) went even further: "No illness which can be treated by diet should be treated by any other means." Although neither of these ancient physicians had available the array of life-preserving pharmaceutical products used by doctors today, the advice quoted would still seem to make sense.

What is more, the savings to our tax-supported drug programs would be considerable if lower cost nutrients were demonstrated to be effective and were prescribed rather than drugs or surgery. To illustrate this point, it is instructive to look at five conditions for which advocates

of nutritional pharmacology claim success: benign prostatic hypertrophy, childhood asthma, angina pectoris and related cardiovascular problems, osteoarthritis and elevated cholesterol levels in the blood. Traditional medical and surgical methods are used to treat these conditions but none is entirely satisfactory. If the nutritional treatments that some advocate were as successful or better, very considerable financial savings would ensue, with reduced risk of drug or surgical complications and more opportunities for guided self-medication. Like diabetics who are taught to pay close attention to diet and lifestyle, those suffering from such conditions could be taught to take more responsibility for their own health.

If the advocated nutritional treatments for these five conditions were found to be as effective as traditional treatments and were employed instead of the latter, the theoretical savings can be estimated to be very large indeed. Assuming that nutritional treatments were substituted for all Ontarians suffering from these five conditions, an estimate of annual savings of up to \$230 million can be made.

It must be stressed that this Inquiry does not have evidence to show that Ontarians being treated for these five conditions can all be safely switched to nutritional treatment. Clearly, steps that must be taken before such changes are implemented require an attitude shift by the professions of medicine and pharmacy and action by government.

Health professionals must turn an open mind to the possibility that minor nutritional deficiencies may cause or contribute to illnesses that are not now regarded as nutritional disorders. (It was only a decade ago that most physicians disregarded the link between diet and certain cancers; now a relationship between excessive intake of fats and inadequate dietary fibre and cancers of the breast and colon is considered likely.) Other conditions, including some viral infections (shingles, infectious hepatitis, etc.) many respond to amino acid and vitamin therapy. Unless the medical profession, and especially clinical scientists, encourage systematic study of nutritional pharmacology, its potential cannot be established.

Governments and their research granting agencies have an important role to play as well. Pharmaceutical manufacturers are not likely to sponsor such research. Drug patents for nutritional products are almost impossible to obtain and the price of these products is one-quarter to one-twentieth of the prescription drugs they might replace. Therefore, pharmaceutical manufacturers would have to be given incentives to produce nutritional products if extensive clinical trials did lead to their widespread use, or alternative production and distribution facilities would have to be organized.

One of the research studies commissioned by the Inquiry, "Citizen Behaviours to Alleviate Minor or Non-Acute Symptoms/Maladies",³ examined the question of professional acceptance of non-drug self-care strategies. The study, which consisted of physician and pharmacist interviews, concluded that "... physician and pharmacist education is of primary importance..." if this area is to be supported. "There was unanimous agreement that education is a basic prerequisite to any real change in the system ... A number ... felt that education must be supplemented by political interventions if a real change in the system is to be felt."

The study came up with a series of recommendations which involve: "1) The development of strategies for educating consumers about effective drug use. 2) Designing consumer education on drug-free self-care behaviours. 3) Exploring innovative approaches to educational strategies, including TV and radio, pamphlets and written materials, computers and videos. 4) The establishment of an advisory group on drug-free alternatives. Recommended beginning steps involve educating physicians and pharmacists about drug-free alternatives and deciding on appropriate target groups." Finally, the study made an overall recommendation which suggested "Long-term government support for education on appropriate drug use."

Steps that could be taken include the following:

- A critical review of the extensive but largely anecdotal literature on nutritional pharmacology, sponsored by the MOH.

This could be analogous to the review of literature pertaining to the use of prescription drugs (the "Goldberg Report"), commissioned by the MOH, which sparked the establishment of the Inquiry. A computer data base of publications considered authoritative could be maintained, in collaboration with the Ontario Medical Association, for the use of Ontario's physicians.

- Increased support for departments of nutritional science in Ontario faculties of medicine and joint studies with appropriate clinical departments. These might include clinical trials in which nutritional treatments are compared with traditional medical treatments (drugs, surgery, etc.)

- Organizing a consensus conference of leading clinicians, nutritional scientists and practising physicians experienced in the use of nutritional treatments to explore the state of the art in Canada and, if possible, recommend studies and policy directions.

- Following the literature review and consensus conference, organizing large scale Ontario pilot projects in which promising nutritional treatments are applied. Results would be widely publicized in the professional literature

and by professional associations.

- Careful examination of the implications for nutritional treatments of the recommendations of the Health Professions Legislation Review.⁴ (Schwartz report)

References

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