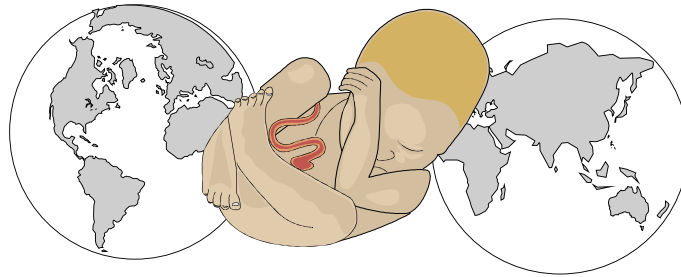


HEALTH FOR ALL



FULFILLING THE VISION OF WHOLENESS
FOR HUMANITY
INTO THE 21ST CENTURY

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PREFACE

This paper and its annexes brings together a wide range of experience, observation and research which demonstrate the undergirding principles for attaining - as the 21st Century dawns - the vision of "Health For All". One may ask, why has a paper such as this which is heavily steeped in bio-physical concepts and realities been prepared for an international dialogue on spirituality and development? In response, let us remember that after all, the Creator did make and does sustain what is very much a physical universe. In this universe natural laws have been established to govern all of its animate and inanimate forces and functionality, with intelligent human life being subject as well to vital social, and moral-spiritual laws. All of these principles separately and taken together are indeed sacred as they ensure life, wellness, and happiness throughout the vast creation. For example, a critical law of life for moral intelligent creatures in the universe is caring service to others coupled to mutual inter-dependence. Violation of this one basic law has bred the numerous tragedies of exploitation and warfare that riddle so much of human history.

In many respects the "modern" world has for the most part sought to ignore and circumvent many of these sacred laws. It has even sought to commandeer and negate the moral and spiritual realm through the widespread advocacy of philosophies such as egocentric competition (a logical spin-off of Darwinian evolution's "survival of the fittest" theory); relativism's denial of absolutes, including moral standards; and positivism's idea that all knowledge is material and thus solely based upon physical observation. In accepting these articles of common faith we are logically forced to conclude that humankind and the observable universe are but undesigned and meaningless cosmic accidents. The human body-mind complex is no longer deemed to be a wonderfully conceived sacred creation that we are morally obligated to nurture and care for, but rather an unplanned for and uncreated collection of atoms, for which limited happiness - with concomitant pain and despair - are but the temporary preliminaries to an inevitable and eternal oblivion. These premises of belief have in turn bred widespread artificialism and materialism, and influenced concomitant conditions of hedonism, amoralism, greed, and psycho-physiological degeneration among ever increasing numbers of the human family.

It would be well to ponder anew the insightful words of one of the truly great bio-medical scientists of the 20th Century, Andrew Ivy (Ph.D., M.D., D.Sc., LL.D., F.A.C.P.)

If man did not create the world, how can he delegate to himself the creation of his worth, dignity, rights, duties, freedom of choice, and liberty?... Man has no absolute claim of intrinsic worth and dignity, no absolute duties and responsibilities, except as a creature of God.... Belief in the existence of God provides the only ultimate and rational meaning to existence...[and is] the only ultimate reason for the absolute

certainty that man is a person and something more than a parcel of matter and energy

Excerpted from: The Evidence of God in an Expanding Universe, Epilogue pp. 224-247

Many of the prominent religious traditions of humanity have recognized “eternal realities” which includes the active agency in human affairs of unnumbered unseen intelligences both good and evil. The scope of this paper is such that it will not delve into the supernatural realm. However, there is no question in my mind but that highly intelligent unseen beings have for millennia interplayed with and strongly influenced - for both good and ill - all human thought, actions and cultures. As a word of caution, our principal danger in the metaphysical realm lies in the unfounded assumption that all things supernatural are of “God”. Indeed, what on the surface may appear to be all good and beneficent - whether in the material or the unseen worlds - could, underneath a subtle sheen, prove to be in reality pernicious and nihilistic.

I believe that such forces have influenced the physical reality that today we as individuals are engulfed in a world where we are not only surrounded and induced by the obvious evils of multiple types and brands of drugs, alcohol, nicotine, and caffeine etc., but even our basic food supply has been severely corrupted. Daily our palates are being tempted and tickled by industries typical fast foods such as: milkless (chemical filler based) milkshakes; coal tar derived “tomato” sauce for use on refined flour pizzas; and chemical colored and flavored sugar rich soft drinks, all of which are in actuality fabricated toxoids that cumulatively weaken and prematurely decay our finely tuned body-mind complex. Furthermore, from the bottom to the very top of our food supply we inescapably imbibe deadly pesticides derived from poisons such as phosgene which caused almost all poison gas deaths in World War 1, and Zykon-B which the Nazis used to kill millions of innocents at Auschwitz, Dachau and other concentration camps.

The highly palliative and outrageously costly social and physical disease treatment industries of our era i.e. medical, addiction, correctional and social “services” represent continuing grim testaments to widespread and chronic breakdowns which are occurring in the body-mind-social complex.

This brief paper seeks to portray a compelling picture of the true basis and sources of health. It is dedicated to the honest searchers for truth and right - and to those many millions of our human family who without their knowledge are being manipulated and exploited by those claiming to be their kind benefactors. In concluding this Preface I would share with every reader the following ancient prayer taken from the Peshitta Scriptures of the Syriac Church of the East: *“May the Creator’s Face Shine Upon Us, That His Ways May Be Known Upon The Earth, And His Saving Health Among The Nations.”*

***“WHEN HEALTH IS ABSENT
WISDOM CANNOT REVEAL ITSELF
ART CANNOT BECOME MANIFEST
STRENGTH CANNOT BE EXERTED
WEALTH IS USELESS AND
REASON IS POWERLESS”***

HEROPHILIES - 300 B.C.

SECTION I. THE DISTURBING DILEMMA OF DEVELOPING WORLD HEALTH CARE:

ECLIPSING THE SPIRIT OF ALMA ATA

The medicalization of large parts of the Third World...has occurred in the context of the destruction of whole systems of traditional philosophies in the name of science and health. Present patterns of dependence are a product of this...evolution. The addictive nature of the new pill culture may as one of its unwanted consequences have played a role in creating and sustaining poverty in the Third World... Pharmaceuticals are an inappropriate solution to many major health problems and...their consumption often does not meet the health needs of people.

Goran Sterky: Dag Hammarskjold Foundation, Uppsala, Sweden.

THE SHADOWS OF WESTERN SELECTIVE MEDICINE

It was the year 1978 when the OECD and Developing World Nations jointly signed the historic Alma Ata Declaration.¹ This Declaration embodied the fundamental principles of Primary Health Care that the Nations of Earth were committed to henceforth pursue. These notable principles follow:

TABLE I.

THE PRINCIPLES OF ALMA ATA

- i. Equitable Distribution - addressing the multiple root causes of ill health, and ensuring health resources are equitably distributed among all groups and across geographic regions.
- ii. Community Involvement - ensuring that health decision-making is duly vested with local communities.
- iii. Multisectoral Approach - according practical recognition to the key influence on health of environmental, nutritional, economic, and social factors, as well as health services
- iv. Appropriate Technology - seeking socio-cultural acceptability and relevance of technical health interventions.

This universal declaration largely arose from the demands of Developing World representatives for a more fundamental and common sense approach to health care predicated on the axiom that multi-sectoral measures which are safe, simple, effective and uncostly hold the answer to

THIS SECTION EXAMINES AND DOCUMENTS THE OVERALL IMPACT OF CONVENTIONAL WESTERN "SELECTIVE MEDICINE" ON THE WELLNESS OF DEVELOPING WORLD POPULATIONS, AND URGES A RETURN TO THE MORE BASIC INTERSECTORAL AND DEVELOPMENTAL APPROACH TO HEALTH SUSTENANCE AS EMBODIED IN THE UNIVERSAL ALMA ATA DECLARATION.

attaining sustainable and long term health improvement for all peoples and nations. However, this international agreement was all too soon to be overshadowed and overwhelmed by a widely expanded policy emphases on the part of both Developed and Developing World governments on “Western Selective Medicine” (viz. a massive acceleration and expansion in the employment of patented pharmaceuticals, and artificial immunization as the answer to human health problems took place, and continues to this day).

To better appreciate the long term consequences of the Selective Medicine dynamic we need only to look to this “health care” systems impact on the Indigenous populations of the United States and Canada. Compliments of the federally funded Indian Health services in these two wealthy nations, the Indigenous peoples of N. America have now reached the unenviable distinction of being not only the most thoroughly treated, medically drugged, and immunized but have also concurrently gained the distinction of being the sickest ethnic people group on the continent (e.g., as we neared the 1980s, the “Canadian Indian” infant mortality rate was double that of the general population, with life expectancy at 36 years compared with 62 years among Canadians generally.)²

Furthermore, there is alarming evidence which suggests that in many Indigenous communities there is a continuing escalation in both degenerative and social diseases. Extensive historical and paleopathological data convincingly indicate that when living a way of life closely predicated upon the natural laws of the Creation, and free of adventitious medical interventions, the Indigenous peoples of North America were distinguished as being among the healthiest of world peoples.³

A closely parallel and instructive picture can be found among the Maori (Polynesian) people, who also have been especially earmarked by their national government (New Zealand) to receive the full and flowing benefits of Selective Western Medical care and intervention. A comparative study covering the period of 1968 to 1971 found that in contrast with their racial counterparts who live in the remote island nations of the Pacific, the New Zealand Maoris were more inclined to suffer from infectious disease, rheumatic fever, and tuberculosis. They also seemed considerably more prone to develop degenerative conditions such as heart disease and diabetes, afflictions which were virtually foreign to their remote island cousins. (In fact, among middle aged Maori women coronary heart disease was four to five hundred percent as frequent as among women of the same age group living on the atolls of the Central Pacific.)⁴

Some leading international health officials, such as Robert Bannerman who while serving as a Director at the World Health Organization, legitimately raised the concern that whether in the Developed or Developing Worlds, the disparity between the actual benefits and the high costs of Western Selective Medicine continues to be an issue of major socio-economic, and political concern. As part of this picture, it is noted that in the Developing World, roughly one third of all health care costs are devoted to “the drug bill alone”,⁵ with relatively poor countries importing such drugs against payments in scarce hard currency.

Charles Medawar, Director of a London-based research unit, Social Audit Ltd., has conducted extensive international research on the issue of medicalization practices in the Developing

World. He has documented the following disturbing conclusions in an article on the need for the strengthening of international regulation in pharmaceutical practice:

- the major proportion of pharmaceuticals on the world market are “unessential and/or undesirable products”;
- there are well documented cases of the ongoing marketing of pharmaceuticals to the Developing World that are known to be inherently unsafe and dangerous;
- excessive prescribing constitutes a major cause of “adverse reactions”, with "chronic and serious under-reporting" of adverse reactions being the norm; *
- information from tests and trials on drugs typically ranges from inadequate to appalling (in most clinical trials, the sample sizes are too small and the length of treatment too short to substantiate the claims made on the strength of them);
- most prescribing information is partial, unreliable and incomplete, with the benefits routinely “emphasized and over-emphasized”, while the disadvantages and potential dangers are routinely played down or ignored;
- in most countries (especially in the Developing World), the right to redress of damaged patients or clients is extremely limited, or does not exist at all;
- as a rule, decisions about medicines are almost totally dominated by professional and commercial interests, and are usually carried out in secret, with public accountability for the medical system and its practitioners severely restricted; and
- internationally, the drug industry devotes only 1 percent of its research and development expenditures on “poor world” diseases, despite the fact that no effective “treatments” are known by Western science for over half of the diseases common to the poor countries.

* Estimates of the extent of under-reporting of adverse reactions to prescribed medicinal drugs in the United Kingdom, “which has one of the most sophisticated post-marketing surveillance systems in the world” - through the mechanism of the UK Committee on Safety of Medicines - range from 90 to 99 percent.

Medawar also provides evidence which suggests that the World Health Organization's intimate cooperation and “contractual relations with many pharmaceutical companies”, inter alia, cripples its capacity to effectively represent and support the most fundamental health needs of the Developing World through developing a system of care in which the most prevalent and serious health needs are being genuinely met.⁶

Even where the World Health Organization has been able to advocate a more rational public sector approach to medical practice in the Developing World, as in its 1981 Action Program on Essential Drugs and Vaccines, the fact remains that in most Developing World countries there is readily available in the private sector from 10 to 20 times as many pharmaceutical products as the 250 which are recommended in the Organization's Action Program. According to Sterky “...in some Third World countries, up to 75 percent of the drugs moving in the market may be outside the control of health ministries”. This active trade in up to 4,000 drug products is

largely monopolized by powerful transnational corporations. In fact, it is estimated that 90 percent of the world's production of commercially marketed pharmaceuticals originates in the industrialized countries, with this percentage growing.⁷

ALARMING CONDITIONS: THE CASE IN SOUTH ASIA

Trisha Greenhalgh's seminal survey of 2,400 individual patients under treatment in the public and private medical sectors of India is illustrative of conditions which are becoming increasingly prevalent throughout much of the Developing World. It will thus be looked at closely.

Her research confirms that drugs which have a high incidence of side effects or a "significant risk of fatal idiosyncrasy" are being sold over the counter and prescribed by doctors for trivial complaints. Chloramphenicol, barbiturates, anabolic steroids and high dosage estrogen preparations "are used freely, often from bizarre indications and in unsuitable dose regimens". She refers to one national study which estimates that India is experiencing between five to ten thousand deaths annually, from chloramphenicol-induced aplastic anemia alone. High dose estrogen-progesterone although containing warnings of teratogenicity (potential to cause birth defects) remain the cheapest and most widely employed pregnancy test in the country. Furthermore, medical drugs which have been banned in Western countries due to their dangers are actively prescribed, dispensed and marketed. A few cases include: phenylbutazone, which has been associated with more deaths in Britain than any other drug; and clioquinol which is officially accepted as a "safe drug", in apparent ignorance of the major scandal in which literally tens of thousands of people were left crippled from the drug, with its manufacturer, Ciba Geigy conceding full blame.

Greenhalgh further reports that the pharmaceutical industry argues that "these drugs have not been shown to be hazardous to the Asian population", and that it awaits the results of post-marketing surveillance before withdrawing them. In her words "this is less a cry for objectivity, than a justification for exploiting the sorry state of medical audit". Indeed, case records are rarely kept by doctors engaged in private practice, and polypharmacy remains rife, so most adverse drug reactions remain inevitably undetected. Even if they were detected, there exists no system for the reporting of suspected reactions, and there is no official procedure or mechanism for alerting doctors of suspected adverse reactions in new drugs. This situation is further compounded by the fact that to all appearances - with the exception of teaching hospitals - postgraduate education in clinical pharmacology remains the "unchallenged province of representatives from the pharmaceutical industry".

Simple solutions appear to be ignored. For example, 30 percent of all child deaths in the nation are due to diarrhoea, yet in over 90 percent of such cases oral rehydration is ignored by practicing medical doctors. In the population, millions are known to have a Vitamin A deficiency, with as many as 30 thousand children being blinded each year. This occurs despite the fact that "a fresh mango provides many weeks supply of Vitamin A for a child and costs much less than a bottle of vitamin syrup."

To conclude this summary, I would share Greenhalgh's following observation.

*...one cannot ignore the long term effects [and the ethical implications] of encouraging a poorly educated population to develop blind faith in the infallibility of modern medicine, and the magical properties of prescribed pills...people who are too poor to buy rice are being led to believe that they need a cough mixture for every cough, an antibiotic for every sore throat, and a tranquilizer to solve the problems of everyday life.*⁸

The Traditional Medicine Alternative

Mira Shiva, in drawing upon her practical experience as a Medical Doctor in South Asia, protests that low cost, self reliant, and indigenous "health care alternatives" have been unduly marginalized with the rapid growth of the medical-industrial complex. Indeed, while clinics and drug dispensing units, nursing homes, drug marketing outlets, and diagnostic labs have literally mushroomed throughout her home nation of India - at rapidly escalating costs - there has been no appreciable or "significant" improvements in the "health status of the people". She further contends that:

Simple health care solutions, for example changes in diet, simple massages, home remedies and herbal medicines, which are as relevant today as in the past...have been gradually excluded from the health care scene, because of an assumed superiority of modern drugs for all kinds of health problems. This assumed "scientificity" has not been demonstrated by comparing the existing and new pharmaceuticals with alternative therapies in terms of efficacy, side effects, drug interaction, costs, acceptability, and availability.

She agrees with the view I hold that world-wide the traditions of Indigenous Peoples encompassed a superior holistic concept of health and disease, in which the use of medicines served to complement and not displace more fundamental and broadly based nutritional and environmental provisions. She concludes by stating that:

*...the concept of the universalization of the pharmaceutical medical solution...irrespective of the nutritional and health status of patients [and or recipients] in deprived areas, is irrational....It also indicates an unhealthy First World bias on the part of drug exporters, transferors of technology and propounders of myths.*⁹

The human experimentation with and exploration of plant medicines has evolved over the millennia to what is a current usage of some 20,000 plant species, which form the major sources of medicine for the population of the majority of the World. Nonetheless, there has been an aggressively pursued and increasingly actualized goal to displace this traditional knowledge and practice system, with commercially marketed Western drugs, 75 percent of which are strictly synthetic chemical substances, that without exception, bear toxic and thus harmful side effects. (I've completed for availability a separate concise paper entitled *From Selective to Indigenous Medicine: Repossessing the Ancient Wisdom*. This paper explores the issue of traditional medicine as a viable basis for Developing World Primary Health Care.)

LEARNING THE LESSONS OF HISTORY

Beginning in the early 1980s and continuing to this day, virtually all of the OECD Nations have overshadowed their earlier vision and commitment as declared at Alma Ata, to strongly support basic intersectoral measures for health improvement. Instead we see major emphases being given to selective curative programs, including widespread drug marketing and mass artificial immunization. In response to this major policy reversal, in November of 1985, alarmed community health specialists and practitioners from several Developed and Developing Nations convened at Antwerp, and there articulated what is called *The Antwerp Manifesto For Primary Health Care*. Some key excerpts from the *Manifesto* follow:

TABLE II.

ANTWERP MANIFESTO

In spite of the lessons of history and of past experiences, major and international donor agencies are diverting scarce resources into a short term approach known as "selective primary health care"... This approach is in total contradiction with the fundamental principles underlying Primary Health Care. These principles are:

- ✧ The main roots of poor health lie in living conditions and the environment in General, and more specifically in poverty, (and) inequity...of resources in relation to needs
- ✧ Since health is...of people, it is self defeating not to consider them as partners who are able to play a great part in the protection and improvement of their own health; and
- ✧ Health services must provide...promotive and rehabilitative measures. This has to be done in a coordinated and integrated way which responds to the peoples needs.

This manifesto is issued because the proliferation of selective health intervention programmes undermines...Primary Health Care. It is issued also because these interventions purport to offer "quick solutions" and "instant success" for which they divert scarce resources from the solution of the real underlying and continuing problems, thus helping to maintain ill health. In addition, experience has taught us that selective interventions tend to become permanent even though they are presented as "interim" responses only.... And above all, the selective approach rules out the possibility of people's participation in decision making about their own health. ¹⁰

To conclude this section it should be noted that disquieting evidence - much of which is not cited in this paper - suggests the overall irrelevance of Western Selective Medicine to effecting longevity and ensuring general freedom from a range of infectious and degenerative diseases. Furthermore - despite being called "health care" - as a system, it continues to significantly

contribute to human morbidity and mortality ¹¹ (e.g., it has been shown in the U.S.A., Holland, Israel and other Developed Nations that when physicians engage in a complete strike, within seven to ten days death rates actually plummet, in some cases by as much as 60 percent).

It would be appropriate here to quote Ivan Illich's unambiguous observation that "Society can have no quantitative standards by which to add up the negative value of illusion, social control, prolonged suffering, loneliness, genetic deterioration and frustration produced by medical treatment". ¹² In reference to Western Medicine's central focus on absolving mankind from giving due respect to the natural laws as established in nature and in our very being by the Creator, Mahatma Gandhi shares the following perspective.

I was at one time a great lover of the medical profession...I no longer hold that opinion...Doctors have almost unhinged us.... I regard the present system as black magic.... Hospitals are institutions for propagating sin. Men take less care of their bodies and immorality increases....ignoring the soul, the profession puts men at its mercy and contributes to the diminution of human dignity and self control.... I have endeavoured to show that there is no real service of humanity in the profession, and that it is injurious to mankind.... I believe that a multiplicity of hospitals is not test of civilization. It is rather a symptom of decay. ¹³

Evidence suggests that Western medicine's over specialization and singular focus on pathology has literally obfuscated its perception and undermined its faith in the preventive and restorative power of the normal requisites of health. This perceptual problem is strongly linked to what has now become likely the most widely supported technological intervention of Western Selective Medicine, i.e. artificial immunization. (Given the unique importance of this issue to the effectiveness of Developing World Primary Health Care, and its sheer depth and complexity, I've completed for availability a separate brief paper entitled *Miracle in the Making: Reality or Mirage?* This paper openly addresses the scientific and developmental concerns surrounding immunization.)

SECTION II. THE CAUSAL BASED CONCEPT OF PRIMARY HEALTH CARE

We should ascertain whether natural resistance to infections could be conferred on man by definite conditions of life. Injections of specific vaccine or serum for each disease, repeated medical examinations of the whole population, construction of gigantic hospitals, are expensive and not very effective means of preventing diseases and of developing a nation's health.

Alexis Carrel of the Rockefeller Institute in:
Man the Unknown - p. 207

ADDRESSING THE CAUSES OF HEALTH

In a recent article in the World Health Organization publication *World Health*, Khan et. al suggest that normatively health services in the Developing World continue to be either substandard, inaccessible, unaffordable and under-utilized, or to “suffer from a combination of these factors”. The authors go on to comment that while the governments of many nations “have spent millions on building physical infrastructures at district levels, the over-all health status, especially of the urban and rural poor remains deplorable”.¹⁴ This and a number of like articles on Primary Health Care, suggest that the primary weaknesses now requiring rectification relate to inadequate local participation in, and the non-sustainability of medical services. I would put forward the view that each of the specific problems and weaknesses as identified, including the critical issues of local participation and sustainability in development, and the larger issue of overall ineffectiveness, stem from the very principles and nature of conventional Western Selective Medicine itself.

In a chapter on “Health and the Human Environment” found on the classic work *Health, Food and Nutrition in Third World Development*, M. Sharpston provides critical insights on how multiple social and environmental factors ultimately serve as the real determinants of survival, or alternatively death. In his words “...there is a limit to what conventional health services can achieve in an unchanged physical and social environment.” He then refers to the experience of a medical school affiliated hospital in Cali, Columbia which had a special program for premature infants. During their period of critical care, survival rates remained comparable to those found in North American critical care settings, however within three months of being discharged, 70 percent of the infants had died. With reference to those regions within the Developing World where notable health improvements have occurred he suggests that:

THIS SECTION WILL EXAMINE WHAT SHOULD BE THE DEVELOPING WORLD PRIORITIES IN HEALTH CARE. IT ALSO EXPLORES AND RECOMMENDS A NEWLY EMERGING APPROACH TO HUMAN HEALTH RENEWAL AND SUSTENANCE TERMED THE CAUSAL MODEL. THIS MODEL IS PREDICATED ON THE PRINCIPLE THAT MAN'S RELATIONSHIP TO THE INHERENT DESIGN AND LAWS OF THE CREATION, CONSTITUTES THE GENUINE FOUNDATION FOR EFFECTUAL PREVENTION AND CURE.

The most likely factors leading to health improvements...are a rise in the levels of nutrition and the slow spread of modern ideas of personal hygiene. Across the Developing World, per capita incomes are rising, and transport systems are improving; the result is more food, better quality food, fewer localized food shortages, and a more varied diet. In other words, the principal factor behind the improvement in health...in Developing countries is probably not any form of health measure, but economic development itself.....Mere exposure to a disease agent need not produce clinical disease and very frequently does not do so.

He concludes by pointing out that malnutrition is a significant concern because it hampers the body's natural resistance. Malnutrition acts "synergistically" with disease agents to increase the incidence and severity of clinical diseases. ¹⁵

In a very recent article seeking to pinpoint the major influences on health in the Developing World, Thomas McKeown, past Chairman of the World Health Organization Advisory Group on Health Research Strategy also clearly articulates a view that takes the issue human health out of the delimiting bounds of Selective Medicine. He refers to evidence that is now available from a number of Developing World countries that have "advanced rapidly in health": China, Costa Rica, Cuba, India (Kerala State), Jamaica, Sri Lanka, Thailand, and some others. These improvements in their health status was almost entirely due to a lessened prevalence of infectious diseases. In his words:

To assess priorities in health policies in the Third World the chief requirement is therefore to come to a conclusion about the reasons for the decline of the infections....All the countries that advanced rapidly achieved a substantial improvement in nutrition, which led to increased resistance. Indeed in some countries this was the only important direct influence. It is perhaps surprising that immunization appears to have contributed relatively little to the advances...the reduction in mortality occurred during a period when vaccine coverage was still low.

To anyone who has traveled extensively in the rural areas of the Third World, the common causes of ill health may seem self-evident. Many children are visibly malnourished, sanitary conditions are primitive, drinking water is unclean, the food...is contaminated, and the number of people competing for the means of life is clearly excessive. Our conclusions concerning the determinants of health can be epitomized by the simple statement that people must have enough to eat and must not be poisoned. ¹⁶

In a *World Health* article highly germane to the "determinants" as raised by McKeown, Finland's H. Hellberg (a former Division Director at the WHO) postulates that the success of any genuine effort to alleviate disease in the Developing World must incorporate "intersectoral and multisectoral action". In his words "involvement of specialists other than the traditional healing professions; water, food, housing, sanitation and education are all important prerequisites for health. If they are neglected curative repair...may even be impossible". ¹⁷

To conclude these critical observations on Developing World health development priorities, it would prove instructive to consider the similar conclusions reached by K. L. Standard Professor and Head - Department of Social and Preventive Medicine, University of the West Indies. He

strongly contends that to achieve mere survival is not enough. Without improving the standard of living, and particularly nutrition status, children will frequently succumb to infections, and have repeated relapses. For primary prevention, public health education, enhanced food production and environmental sanitation deserves the highest priority. Indeed,

*....For obvious reasons, the highest priority must be given to preventive measures...The final and permanent answer to the problem will rest in...social and economic development...taking into account the need for nutritional improvement of the present generation. If good nutritional status is maintained in the first years of life, successive attacks of most infectious diseases of moderate virulence will probably produce no more than mild effects....Optimal maternal diet during pregnancy, prolonged breastfeeding, progressive weaning with appropriate foods, and education of mothers on infant-feeding practices are the basis of good nutritional status in children.*¹⁸

EMERGING - A MORE PRACTICABLE PRIMARY HEALTH CARE MODE

TABLE III. which follows on the next two pages, was developed with the appreciated assistance of Canadian medical sociologist L. Chetelat. It provides a clear picture of the paradigmatic contrasts existing between the war on disease model as exemplified in Western Selective Medicine, and the emerging causal based approach to health sustenance and restoration. The causal model is strongly predicated on the principle that man's relationship to the laws of nature (natural law) and life, must undergird any effective health maintenance and or restoration strategy. Such an approach is recommended as inherently more sensible, balanced, and cost effective for attaining and sustaining public health, whether in the Developed or Developing Worlds.

The causal based model strongly emphasizes the importance of strengthening self-knowledge, self-responsibility, and self-care and thus far more closely corresponds to the challenge and direction mandated in the historic Alma Ata Declaration. It also affords genuine respect for the integral principles which undergird the practice of participatory development. As a final point its characteristic qualities of local accessibility, manageability, affordability, and effectiveness herald its great promise for humankind.

**TABLE III. THE WAR ON DISEASE APPROACH VERSUS
THE HEALTH CAUSAL APPROACH**

1. ORIENTATION AND PHILOSOPHY

Disease is understood as an entity separate from the patient.

The body and mind are separated, with distinct diseases & organs treated singly.

The focus is on labelling, isolating, & destroying disease entities & symptoms.

2. CAUSALITY

The focus of causality is external to the patient - viruses, bacteria, poisons, & in more recent time stresses in the environment.

3. PREVENTION & CURE

Separates preventative and curative measures.

The emphasis is on removing or palliating symptoms. It aims at achieving quick results.

Relies on highly sophisticated technological & costly measures that are not amenable to self and care, e.g. manufactured vaccines, organ transplants, drugs, etc. These measures are noted for bearing harmful side effects (pandemic iatrogenesis).

ORIENTATION AND PHILOSOPHY

Recognition of acute disease as a systemic reparative process inseparable from the person.

Recognizes that the body and mind are inseparably one, & must be treated as a unity.

the focus is on strengthening the protective healing energies and resources of the person.

CAUSALITY

The focus of causality is both internal to the person as it relates to habitual lifestyle practices, primary deficiencies, negative emotions, etc.; & external as it relates to debilitating factors in the natural and social environments

PREVENTION & CURE

Recognizes that health sustenance & restoration depend upon the selfsame measures.

The emphasis is on removing causes through lifestyle improvements & other sustainable changes to debilitating social, environmental, and political conditions.

Relies on health building & restorative measures that are harmless, noninvasive, efficacious, family based & uncostly. These include: adequate & quality nutrition, potable water an enhanced natural environment complemented by local non-toxic plant medicines & other appropriate technologies.

4. CARE PROVIDERS

The emphasis is on exclusive management & control of health and disease by medical professionals who know all, while patients follow orders.

Relies solely on the expertise of highly trained medical professionals.

5. COST

Cost is escalating to the point of being an unsustainable burden.

6. RESEARCH

Research focuses on tracking, isolating & destroying disease associated entities.

The absence of disease is considered the result of techno-medical interventions.

7. HEALTH CARE OUTCOMES

Produces a system of disease care & disease scare. People learn to fear, distrust and disrespect the respect natural world, and their own bodies

People become unduly dependent upon medical institutions & authorities. This in diminishes self-respect and responsibility, coping strategies are diminished leading to resignation, helplessness and hopelessness.

CARE PROVIDERS

Emphasis is placed on the informed and responsible involvement of people in understanding & managing their own health needs.

Builds upon the distinctive knowledge & inherent capacities of individuals, families & communities. "Local healers" are prepared to provide basic care coupled to training in wellness principles and family self care.

COST

Cost is de-escalating, to the point of of being marginal.

RESEARCH

Research focuses on better understanding & appropriating the fundamental requisites of life & health.

The absence of disease is recognized as the consequences of compliance with natural law.

HEALTH CARE OUTCOMES

Produces a system of health care based on people developing a practical knowledge of, trust in & for the natural world, and their own bodies.

People develop and carry out coping strategies, which in turn will inevitably lead to better health and fuller life.

SECTION III. DISEASE CAUSATION: MYTHS AND MARVELS

Biological laws are designed to operate as certainly within their sphere as physical laws are in theirs...whenever and wherever sickness does exist , it is in consequence of a violation of these laws and to cease to violate them and, in addition earnestly to obey them, is to begin to cease to be sick and to begin to get well.... Physicians are engaged in “fighting disease” not in removing its causes. They think of disease as due to germs and viruses and not as the result of ways of life that conflict with the bests interests of the organism.

They treat each so-called disease as though it were a single soldier or a guerrilla band, ambushed or ensconced in isolated regions of the body, and...against the most urgent remonstrances of the organic instincts...charge it with their hypodermic guns, bombard it with their vaccinal canons...and seek to destroy it with their atomic bombs - fission products... “Warring on disease” amounts to battling down reserve life forces and fighting delusional causes and entities. It is really a war upon the human constitution.

Physiologist Herbert Shelton in:

...Man’s Pristine Way of Life, pp. 293 and 510.

INFECTIOUS DISEASE

The issue of what is the real cause behind human infectious disease - although an old one - remains highly relevant and timely in that the whole edifice of Western Selective Medicine, both preventive and therapeutic, hinges upon a correct perspective on and resolution of the question. Indeed, it remains remarkable that whether we go to recent or more distant history, we find that fundamentally critical scientific discoveries and observations which serve to clarify these issues, and point in a more appropriate direction, continue - at least in practice - to be largely unknown and or ignored. Due to the need for brevity, only a few historic cases will be considered.

Earlier in this century, C. E. Rosenow of the Mayo Biological Laboratories began a series of experiments in which he took distinctive bacterial strains from a number of different disease sources and placed them in one culture of uniform media. In time the distinctive strains all became one class. By repeatedly changing cultures, he could individually modify bacterial strains making them some harmless or “pathogenic” and in turn reverse the process. He concluded that the critical factor allowing demonstration of the polymorphic (or pleomorphic) nature of bacteria was their environment and the food they lived upon. These discoveries were first published in the year 1914 in the Journal of Infectious Disease.¹⁹

Rosenow's work was corroborated and expanded upon a few decades later by R.R. Rife, developer of the Universal Microscope, developed at the time of RCA's early marketing of the electron microscope. Rife's scope was a 5,682 component, 150,000 power (60,000 diameters of magnification) instrument which made live bacteria visibly “clear as a cat on your lap” (See

THIS SECTION WILL BRIEFLY RECOUNT SOME OF THE KEY MYTHS AND LARGELY IGNORED OR FORGOTTEN TRUTHS IN SCIENCE RELATIVE TO THE VITAL QUESTION OF WHAT ARE THE REAL BIO-PHYSICAL CAUSES UNDERLYING HUMAN INFECTIOUS AND DEGENERATIVE DISEASE.

Annex C for a photograph of this instrument). An alternative was required, as living matter when viewed under the electron scope, becomes altered and distorted due to bombardment by a virtual hailstorm of electrons, with such distortions increasing proportionally with the intensity of magnification. Consequently, the extremely high magnification levels found in the latest electron microscopes actually serve to exacerbate this major flaw. This microscope was a light transmitting instrument which overcame the chief weakness of the electron scope, i.e. the inability to view living cells structures and microorganisms in their unaltered living state.

Modern microscopy texts suggest that with light microscopes it is impossible to obtain extremely high magnifications of objects and still retain visual clarity. For example Novikoff and Holtzman affirm that in such instruments a point is reached after which the image is “increasingly blurred and nothing is gained by further magnification. Thus, light microscopes are rarely used at magnifications greater than... 1500 X.”²⁰

However, Rife's invention with its 14 separate crystal quartz lenses and prisms, was able to bend and to polarize light in such a way that a specimen could be illuminated by extremely narrow portions of the spectra, and even by a single light frequency. This combined with the shortening of projection distance between prisms, and other innovative technical features permitted high resolutions without distortion at extremely high magnifications, never before or since attained in light microscopy.²¹

Rife actually demonstrated that by altering the environment and food supply, friendly bacteria such as colon bacillus could be converted into "pathogenic" bacteria. For example, he observed that in as brief a time span as 48 hours (by just altering the media - 4 parts per million per volume) harmless *Bacillus coli* became *Bacillus typhosus*. - a process somewhat analogous to the metamorphosis of caterpillar and butterfly - with the process being reversible. In Rife's words:

*In reality, it is not the bacteria themselves that produce the disease, but we believe it is.. the unbalanced cell metabolism of the human body that in actuality produce the disease. We also believe if the metabolism of the human body is perfectly balanced... it is susceptible to no disease.*²²

This observation closely parallels Alexis Carrel's earlier research at the Rockefeller Institute where he was able to control the rates and levels of infectious disease mortality among mice. Beginning with the “standard American diet” he observed a corresponding death rate of 52 percent. By making specific dietary improvements, he was able to reduce mortality rates downward to 32 percent, then 14 percent, and finally to a rate of 0.²³

Not too long after Rife's and Carrel's reported observations, scientist Rene Dubos (also at the Rockefeller Institute) reaffirmed their open and direct challenge to the conventional thinking and practice of the scientific community at large. This prominent scientist concluded that the presumed relationship between microbes and human diseases has been "so oversimplified

that it rarely fits the facts of disease. Indeed it corresponds almost to a cult...undisturbed by inconsistencies and not too exacting about evidence." He expanded upon this view in suggesting that we need to objectively account for the fact that extremely virulent:

... pathogenic agents [i.e. bacterial and viral microorganisms] sometimes can persist in the tissues without causing disease, and at other times can cause disease even in the presence of specific antibodies. We need also to explain why microbes supposed to be non-pathogenic often start proliferating in an unrestrained manner if the body's normal physiology is upset... During the first phase of the germ theory the property was regarded as lying solely within the microbes themselves. Now virulence is coming to be thought of as ecological...This ecological concept is not merely an intellectual game; it is essential to a proper formulation of the problem of microbial diseases and even to their control. ²⁴

Indeed, Dubos - in time - came to voice the conclusion that "Viruses and bacteria are not the cause of disease, there is something else". In his classic work *Mirage of Health*, he states "The world is obsessed by the fact that poliomyelitis can kill and maim...unfortunate victims every year. But more extraordinary is the fact that millions upon millions of young children become infected by polio virus, yet suffer no harm from the infection." ²⁵ This view closely corresponds to the oft quoted conclusion arrived at in later life by R. Virchow (popularly reputed as father of the "germ theory") when he stated, "If I could live my life over again, I would devote it to proving that germs seek their natural habitat, diseased tissues, rather than being the cause of disease."

Since Dubos' time, researchers have estimated that the quantity of symptom free exposure to viruses out number clinical illnesses by at least one hundred-fold. ²⁶ This conclusion is based on the "high proportion of adults who have virus-neutralizing substances in their serum and the number who, during an epidemic, excrete virus without becoming ill." ²⁷

Further corroborative conclusions have been recently reached by some prominent scientists in their critical examination of the popular view that Human Immuno-deficiency Virus (HIV) is the key, if not the singular cause of the Acquired Immuno-deficiency Syndrome (AIDS). There is substantial evidence that the now popularized view that the retrovirus HIV causes AIDS is far more a political necessity, than a genuine scientific conclusion.

Peter Duesberg (Professor of Molecular Biology at the Univ. of California - Berkeley, considered by many to be the world's leading expert on retroviruses; and Nobel Prize candidate for his work in discovering oncogenes in viruses) provides compelling evidence that lifestyle based factors serve as the primal determinants in the evolution of the 20 plus neoplastic and degenerative diseases that are now commonly associated with AIDS.

Employing his own research - complemented by 196 cited references - an article entitled "HIV and AIDs: Correlation but not causation", was published in 1989 in the Proceedings of the National Academy of Sciences U.S.A. This article indicates that "Free" HIV virus (Free meaning that the retrovirus is already part of the genome) is not detectable in most cases of AIDS"; "Pure HIV does not cause AIDS upon experimental infection of chimpanzees or accidental infection of healthy humans"; and "Epidemiological surveys indicate that the annual

incidence of AIDS [to be understood as a condition symptomized by various secondary infections for which natural immunity has been lost] depends critically on non-viral [related] risk factors...defined by lifestyle, health, and country of residence.”

In an interview published nearly five years later Dr. Duesberg is more convinced than ever that the HIV retrovirus is not the cause of AIDS, or of the mortality associated with AIDs. Although it is not “politically correct”, a number of other prominent scientists now agree with him. Some of the key points he makes in this important interview follow:

- i. There are roughly seven and a half million people world-wide who are known carriers of HIV, and who continue to remain free of the immune deficiency symptoms associated with AIDS, and there’s not one authenticated case “where you get infected today and get a disease... years later... infectious agents work immediately or never.”
- ii. HIV has been found to be totally absent in the system of over 4,600 persons diagnosed with AIDS. Not surprisingly, U.S. Centers for Disease Control has recently decided it was necessary to give such cases an entirely new name i.e. “idiopathic CD-4 lymphocytopenia.”
- iii. There are a million Americans with HIV and their T cells are normal, indeed, “HIV is one of the most harmless viruses you could possibly have. It never claims more than one in 1,000 cells every other day” during which time your body replaces “at least 30 out of 1,000” cells.
- iv. AIDS is not an infectious disease, but rather arises from “party-swinger lifestyles” that includes: the widespread and abundant use of various immune-depleting drugs both legal and illegal such as cocaine, alcohol, marijuana, amphetamines, aphrodisiacs, amyl or butyl nitrites (poppers), combined with correlated conditions of malnutrition, inadequate sleep, and poor hygiene.
- v. Another key cause of AIDS and the mortality arising from it is medical treatment in itself, viz. AZT has become “AIDS by prescription” and “design”. In other words - in the U.S. alone - 200,000 persons (the vast majority of whom exhibit normal health) who’ve tested positive for HIV antibodies, are prescribed 250 mg of AZT every six hours. This highly toxic drug destroys bone marrow, as well as red blood cells - thus precipitating cellular oxygen starvation - destroys white blood cells; causes anemia, weight loss, muscle loss, nausea, and worsening immune system deficiency coupled with the ensuing infectious diseases commonly associated with AIDS, and finally death. (The very same sequence of rapid physiological deterioration, immune deficiency and infections has been documented in healthy persons who were tested positive for HIV, and quickly submitted to medical treatment, but were later confirmed as “false positives”.) ²⁸

In summary, if we return to Robert Koch's 19th century postulates of the "Germ Theory", viz. in order to cause disease particular “bacterium” [or viruses] a) must be found in every case of the disease; b) must never be found apart from the disease; and c) must consistently produce the same disease as that manifested by the body from which the disease related germs were taken; we find that in reality each postulate has been disproved time and again by varied experience,

and vast experimental data.²⁹ Nonetheless, it appears that to this day there remains only a marginal acknowledgment or practical recognition that it is the condition of the body-mind complex and its internal and external environments, which are the principal determinants of the nature, prevalence and role of bacteria, viruses, and even retroviruses.

THE BACTERIAL-VIRAL VERSUS THE CELLULAR-ECOLOGICAL THEORY OF INFECTIOUS DISEASE

As a result of the re-discovery of many of these earlier scientific investigations, as well as more recent observations in molecular biology, there has arisen - among more independent health scientists and primary care health practitioners - a new concept that has been coined as the *Cellular - Ecological* theory of infectious disease. This seemingly more logical and updated view, poses a serious challenge to the present unquestioned emphasis on supporting mass Selective Medicine approaches (including artificial immunization) in the Developing World. The traditional *Bacterial - Viral* and the emerging *Cellular - Ecological* theories of disease are contrasted in TABLE IV. on the next page. The practical acceptance of the cellular theory as delineated would entail a substantive shift away from the flagship preventive and therapeutic interventions of Western Selective Medicine, i.e. vaccines and drugs, and toward the tried and tested fundamental health measures such as sound nutrition, potable water, sanitation, and overall enhancement of the human physical and social environments. (This reference covers inter alia TABLE IV.)³⁰

Considerable experimental, historical and epidemiological evidence supports the Cellular - Ecological theory. In that major declines in infectious disease took place before the advent of specific vaccines and antibiotics, scientists and or physicians such as Dubos, Dettman, Illich, McCormick, Taylor, Buttram, and Hoffman agree that the overall eradication of varied infectious diseases were due to basic improvements in nutrition, sanitation, housing, education and related socio-economic conditions. For example, Canadian physician W.J. McCormick was able to make this telling observation at midpoint in the present century.

*The usual explanation offered for this changed trend in infectious diseases has been the forward march of medicine in prophylaxis and therapy; but, from a study of the literature, it is evident that these changes in incidence and mortality have been neither synchronous with nor proportionate to such measures.... the decline in diphtheria, whooping cough and typhoid fever began fully fifty years prior to the inception of artificial immunization and followed an almost even grade before and after the adoption of these control measures. In the case of scarlet fever, mumps, measles and rheumatic fever there has been no specific innovation in control measures, yet these also have followed the same general pattern in incidence decline.*³¹

DEGENERATIVE "CIVILIZATION" DISEASES

The question of the proliferation of degenerative disease in Developing World countries has in recent years become a major concern given the fact that such diseases in the last quarter of the 20th century have actually surpassed the frequency of infectious disease. By far the most compelling body of evidence relative to the onset of various degenerative, (also appropriately called "civilization" diseases) is the historical record of the health impact coincidental to the colonization and Westernization of Indigenous societies throughout the world.

A nine (9) year epic investigative journey to examine human nutrition patterns world-wide was undertaken by Weston Price which began in the early 1930s and covered more than 150,000 miles taking him to virtually all inhabited regions of the world. This extensive study recorded the

**TABLE IV. INFECTIOUS DISEASE THEORIES
CONTRASTED**

**Bacterial / Viral Theory
of Infectious Disease**

Disease arises from micro-organisms originating outside the body.

As the primary "cause" of disease, microorganisms are generally to be considered as vicious, needing to be destroyed.

The appearance and function of specific micro-organisms is constant.

Every disease is associated with a particular micro-organism.

Micro-organisms are primary causal agents.

Disease is inevitable and can "strike" anybody, anytime.

To prevent and cure disease, it is necessary to war upon pathogenic

**Cellular / Ecological Theory
of Infectious Disease**

The evolution of and susceptibility to disease arises from conditions arising within the cells of the body.

These micro-organisms are primarily endogenous to more complex living organisms and normally function to assist the life sustaining and/or metabolic processes of such bodies.

The appearance and function of these micro-organisms changes when the host organism is weakened or injured, which injury may be mechanically, bio-chemically, or emotionally induced.

Every disease is associated with particular factors and conditions.

Micro-organisms become pathogenic, i.e. associated with disease, only when the integral health of the body deteriorates. Hence, psycho-physical integrity is of first importance, as it constitutes the key factor in the prevention, or the remediation of human disease in all its forms.

Disease arises from the persistent Violation of natural laws, and correlated unhealthful conditions.

To prevent or to cure all forms of disease, one need only to ensure

micro-organisms (using toxic and pathogenic weaponry) that as well destroys the health of the body-mind complex.

that the primal requisites of health are met, which includes systematic compliance with natural physical, psychological, and spiritual law.

social, psychological and physical conditions of “primitives” living in their traditional manner. Comparisons were made between these and other groups living nearby who had adopted civilized costumes and the typical highly processed foods of the West. Whether Northern or Southern hemispheric Amerindian, Australian Aborigine, East African native, or Pacific Islander, wherever traditional lifestyles and dietary patterns * were maintained there was corresponding superb physical development; undecayed teeth (a barometer of the integrity of the skeletal system); and a relative absence of both social and degenerative disease conditions.

* As one example of the superiority of traditional nutrition among Indigenous peoples, Price found that the diet of the Aborigines of Northwestern Canada provided 5.8 times as much calcium; 5.8 times as much phosphorus, 2.7 times the iron, 4.3 times the magnesium, 1.5 times the copper, 8.8 times the iodine, and 10 times the fat-soluble vitamins of the modern conventional diet.

However it required only one generation living on the processed fare of civilization, and both degenerative diseases and dental decay became pandemic. Another salient symptom of this tragic change was a marked increase in childbirth complications, congenital anomalies, and facial deformities (narrowed dental arches and chins associated with abnormal crowding of the teeth, and as well narrowing of the nostrils). * It was also demonstrated that this disturbed heredity was in fact reversible over a few generations by a simple return to traditional diets.³²

* It is conservatively estimated that approximately 75 percent of North Americans have distinct irregularities in the development of the dental arches and facial form, yet a 1930 paleopathological study in S. America during which 1,276 Inca skulls were examined failed to find a single instance of deformity in the dental arches. The scientists concluded that this was due to the provision of advanced nutrition in the early formative period that is very closely in accord with nature’s fundamental laws of reproduction and development.³³

Similar international research conducted by Paul Bragg found that the foods of Indigenous peoples were not only whole and unprocessed, but grown free of chemical fertilizers, fungicides and pesticides. There was also a general absence in their diets of deleterious beverages such as alcohol, tea, coffee, and cola drinks. Whole races have been weakened and in some cases decimated by the “dead, devitalized diet” called “civilized”. According to Bragg among the Hawaiians who maintained their traditional diet dental caries were only .02 percent, however after adopting the foods of commerce decay levels literally skyrocketed to as high as 80 percent. “The effects of our Western Civilizations diet of death on other races is more rapid and therefore more apparent than what we are doing to ourselves. But the white man is eating his way out of existence. He is committing slow suicide on a racial scale.”³⁴

Disease levels and patterns in North America have been contrasted with those of rural East Africa.

- ⇒ The most frequent adult emergency operation in North America is appendicitis. In Africa, a physician after 20 years of rural practice had yet to see his first case of appendicitis.
- ⇒ Cancer of the large bowel, the second most frequent cancer in North America, is practically unknown among traditional living people.
- ⇒ Disease of the heart is the greatest cause of death in the Western World, while one case has been seen in 15 million East Africans.
- ⇒ In the U.S.A. roughly 350,000 gall bladders are removed annually. D. Burkett commented that, in 20 years of African surgical practice, he needed to remove on average only 1 gallbladder a year.

However, if we shift to the blacks living in industrial South Africa, they have been found to have the same prevalence of various degenerative diseases as do North Americans. “So it cannot be said that these diseases are due to the colour of the skin. They are due to the way we live. These diseases get worse from rural Africa to Westernized Africa.”³⁵ For those who would counter with the view that primitive peoples didn’t live long enough to develop these diseases, in truth most Indigenous people groups were not only very healthy, but were also widely noted for manifesting advanced longevity.

Studies among the Inuit, in Northern Canada, a people only very recently exposed to Western civilization, found a more than 500 percent greater incidence of arterial calcification among 40 to 69 year old Inuit males, who had spent more than ten years in settlement communities, as compared with those men of the same age who had more recently lived in remote nomadic groups. Among various Inuit groups a statistically significant association was noted between dental status and the incidence of aortic and peripheral arterial calcification.³⁶

I recall visiting with Eizabeth Cass - retired veteran ophthalmologist of the North - who explained that before 1940 among the Inuit people (of all age groups) in one area of Canada’s Northwest Territories myopia was non-existent. However in 1940 all the young people were placed in a Catholic boarding school, and as a result the same generation who enrolled, and among later boarding school students, 100 percent are now myopic. This form of observed degeneration obviously relates to adverse changes in their nutrition.

Degenerative diseases like heart disease and cancer are increasingly manifesting themselves world-wide as pandemic adult killers. However, even more alarmingly, these diseases have made serious inroads among children and youth, particularly in Western countries such as the United States and Canada.

- By the mid-twentieth century, close to 60 percent of college age youth in North America were clinically ill. A screening survey of entrants to college and university in 1956 found no less than 586 diseases or physiological abnormalities per 1,000 student admitted.³⁷
- Gafofer reported measurements on the rate of growth of about 30,000 elementary to high school children. Roughly half of the children screened

manifested physical defects such as caries, goiter, defective tonsils, adenoids, defective vision, or enlarged lymph glands.³⁸

- Figures published by Williams in the 70s indicate that as many as 150,000 infants are born in the U.S. and Canada yearly with severe mental retardation,³⁹ while some earlier published estimates suggest that as many as one child in eight is mentally retarded.⁴⁰ Unduly larger numbers of babies are malformed in other ways. Indeed it is estimated that 50 percent of the children in hospital beds in the U.S. and Canada are there because of various types of congenital (birth) deformities, many of which are hidden from view.⁴¹
- I distinctly recall when just over a year ago (early 1995) I heard a media news report which indicated that each year approximately 12,000 children are experiencing fatal heart attacks while playing on school playgrounds in the United States. *
- Today babies have tooth decay, teenagers are falling prey to many disorders, and cancer has become the chief cause of death from disease among children.⁴²

* Contrary to the popular idea that coronary heart disease is inevitable and a disease of the aged, Diehl observes that in Westernized societies “atherosclerotic processes usually begin in the preteen years and progress relentlessly”. He goes on to comment that: *Postmortem studies recorded that over three quarters of American soldiers who died in the Korean conflict already had significantly narrowed coronary arteries. Their average ages was 22 years; and yet atherosclerosis is not natural, nor is it the inevitable result of the aging process. Large populations in the world are clinically unaffected by it.*⁴³

Nutrition science recognizes a strong correlation between a high fat and sugar intake and the high incidence in the three major killers in Western society, i.e. coronary heart disease, stroke, and cancer, with these three diseases alone killing roughly 70 percent of the population (See TABLES VI-XII, on the next three pages for related data and references⁴⁴⁻⁴⁶). TABLE V, below, illustrates the degenerative diseases which have undergone “massive” increases within the Western World in the 20th century.

TABLE V. DEGENERATIVE DISEASES WHICH HAVE UNDERGONE MASSIVE INCREASES IN THE 20TH CENTURY

| DISEASE | TIME FIRST NOTED IN MEDICAL LITERATURE |
|------------------------|---|
| Cancer (various types) | Previous Centuries (Lung Cancer 1919) |
| Coronary Heart Disease | Early 20th Century |
| Renal Stones | 1900 |
| Diabetes | Previous Centuries |
| Hiatus Hernia | 1925 |
| Duodenal Ulcer | 1900 |
| Appendicitis | 1890-1900 |

| | |
|---------------------------------------|----------------------------------|
| Diverticular Disease | Early 20th Century |
| Dental Caries and Periodontal Disease | Previous Centuries ⁴⁷ |

TABLES VI-VIII. THE PATTERN IS REMARKEABLE

TABLE VI. BOWEL CANCER DEATHS (Per 100,000 population)

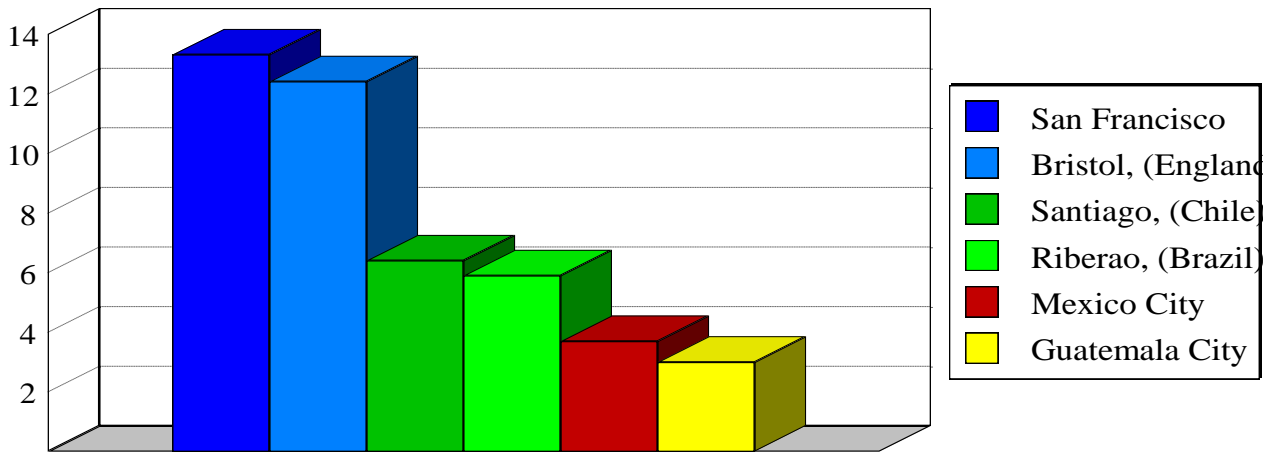


TABLE VII. HEART DISEASE DEATHS (Per 100,000 population)

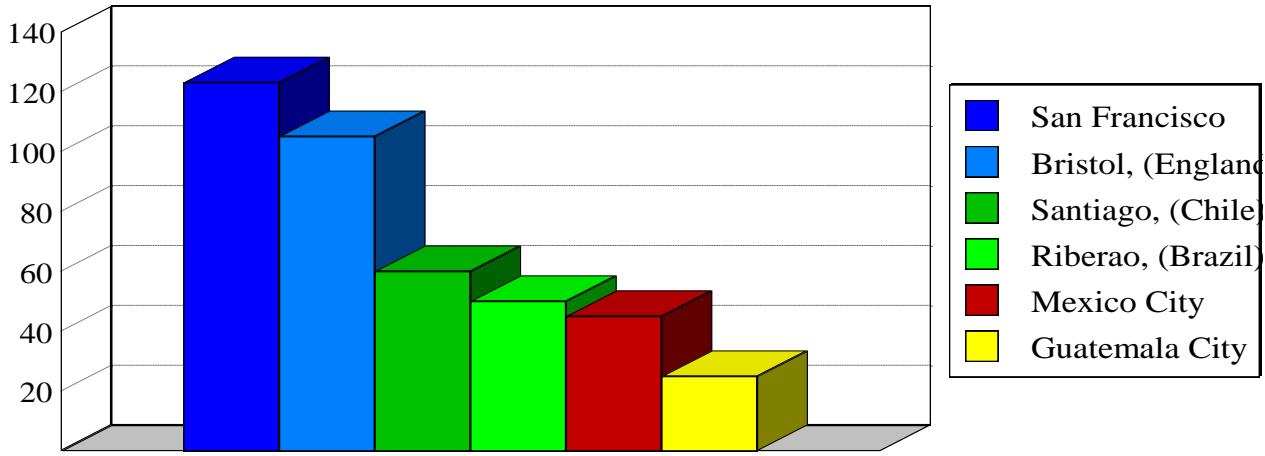
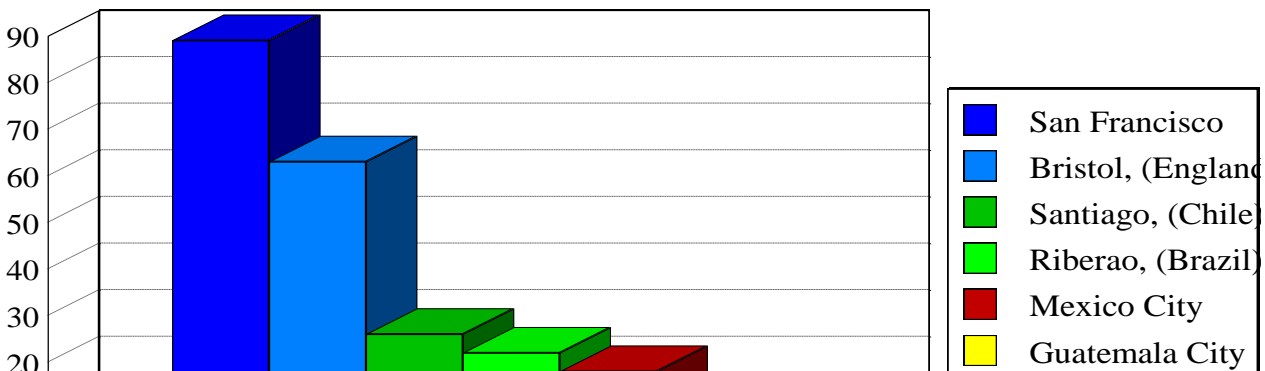
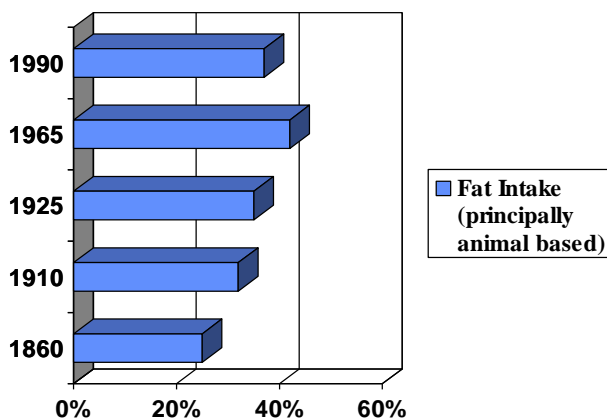


TABLE VIII. PER CAPITA MEAT CONSUMPTION (Kilograms per year)



TABLES IX. AND X. illustrate the massive increase in the use of fats (mostly animal based) and refined sugars in the United States since the year 1860. (These major increases are paralleled - and in some cases exceeded - in other Western nations). With increased awareness of healthful diet this trend began a process of reversal in the decade of the 70s. A diet high in animal derived fats is strongly correlated with Cardiovascular Diseases, and multiple Cancers. Refined sugars impair the immune system and are implicated in all of the major infectious diseases, especially polio; it is also a key causative or contributing factor in Diabetes, Arthritis, Ulcers, and Cardiovascular Diseases. ⁴⁵

IX. FAT AS A PERCENTAGE OF TOTAL DIETARY INTAKE IN THE U.S.A.



X. REFINED SUGAR AS A PERCENTAGE OF TOTAL DIETARY INTAKE IN THE U.S.A.

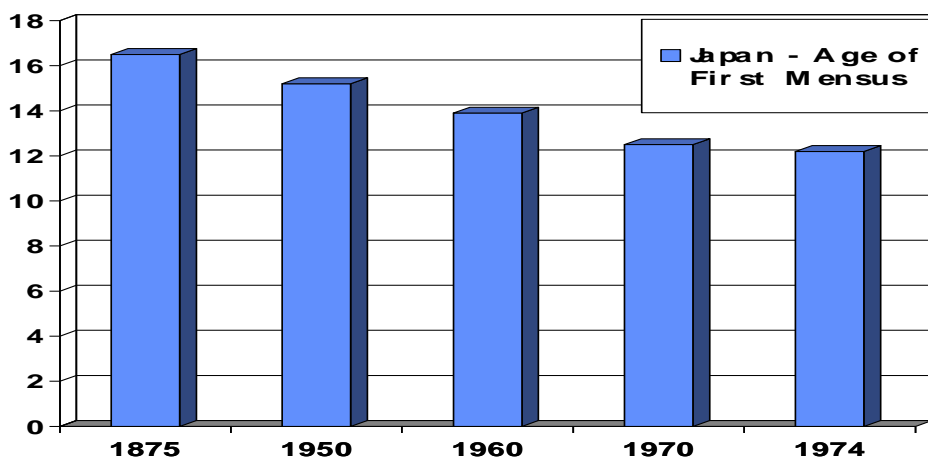
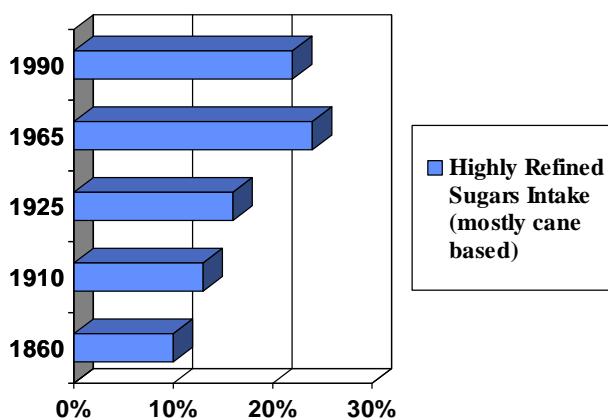


TABLE XI. Japan's Experience - Correlates with Its Progressive Westernization

1. Increased Intake of High Fat Animal Based Foods Correlates With Earlier Mensus
2. This Phenomena is Typical of Various Western Societies In This Century

This illustrates that the escalated intake of animal based foods in the 20th century is not only implicated with increased Cardiovascular Diseases, Cancers, and reduced Life Span, but as well with earlier onset of Puberty. The *U.S. National Cancer Institute* has found that women who have an earlier Menarche (under the age of 13) have over four times the incidence of Breast Cancer as women who have a Later Menarche (over the age of 17). ⁴⁶

SECTION IV. MOTHER EARTH: PRIMAL SUSTAINER **AND DETERMINANT OF HEALTH**

*The purpose of agriculture is not the production of food,
but the perfection of human beings.*
Masanobu Fukuoka

STARTING WITH THE FOUNDATION

In recognition of the incontrovertible axiom that all forms of life derive their basic sustenance from the Earth itself, it remains equally evident that any policy to ensure public health must first and foremost be predicated on ensuring the quality and integrity of the soil. Prominent British horticulturist Sampson Morgan offers the following incisive observation. “My long continued studies in the dust have convinced me that diseases in soils, plants and men arise from conditions, brought about by the introduction of poisons and by imperfect environment; and experiments have satisfied me beyond doubt that this is the natural and correct explanation...No one who has studied the transformation effected by food can deny the proposition that men are what their food makes them. Perfect food might even in time render the human race invulnerable to disease.” ⁴⁸

In his seminal research on the underlying causes of the outstanding health and longevity among the people of Hunza * G. T. Wrench aptly concluded:

The importance of the method of culture of food is primary, radical, and fundamental in the matter of health. It exceeds all other aspects of nutrition... Nature endows life with a powerful, eternal capacity to renew itself healthfully, given the right conditions. The genes know nothing of diseases. ⁴⁹

Shelton seconds this conclusion in his observation that through the relatively simple measure of building up our soils, crops can be freed of various infections. In his view fungi, which live at the expense of living plants, “are incapable of successfully attacking one that is completely

- * Hunza is an isolated society North of Kashmir in the hidden valleys of the Karakoram Mountains. Minerals from the Ultor Glacier are routinely applied to remineralize Hunza’s fields, which have over two feet of black topsoil. The people are noted for exhibiting extraordinary longevity (they are likely the longest lived people on Earth), and have historically remained free from virtually all forms of infectious and degenerative disease. Men sire children into their 90s, and at birth the babies teeth are already fully developed.

(See: Jay Hoffman’s book Hunza: Ten Secrets of the Healthiest and Oldest Living People, Groton Press, Island Park N.Y., U.S.A., 1968)

THIS SECTION EXPLORES HOW THE MIS-TREATMENT OF MOTHER EARTH - FROM WHENCE COMES OUR VERY SUSTENANCE AND LIFE BLOOD - HAS LED TO THE PROGRESSIVE DEGENERATION OF ALL HIGHER LIFE FORMS. IT RECOGNIZES THAT THE REVITALIZATION OF EARTH'S SOILS CONSTITUTES THE VERY FOUNDATION FOR EFFECTING THE PSYCHO-PHYSIOLOGICAL REGENERATION OF HUMANKIND.

healthy” In plants, as in animals, the nutritional status represents the primary determinant of the “soundness of tissue developments”.⁵⁰

VITAL EXPERIMENTS AND INSIGHTS

The historically significant experiments of Sir Albert Howard, British Imperial Economic Botanist, and head of the Agricultural Research Institute (Pusa, State of Bengal) India in the first quarter of this century, confirm the correctness of this view. Through natural soil feeding and regeneration methods, the plants and crops under his management demonstrated continuous improvements to the point of being impervious to all forms of disease as well as insect pests. Speaking of his organic gardens and orchards at Indore, he stated that during seven years of observation “I cannot recall a single case of insect or fungus attack.” Indeed it was his studied opinion that plant diseases are found only when crops are improperly grown. The “true role” of disease:

in agriculture is that of censors for pointing out the crops which are imperfectly nourished. Disease resistance seems to be the natural reward of healthy and well-nourished protoplasm. The policy of protecting crops from pests by means of sprays, powders and so forth is thoroughly unscientific and radically unsound; even when successful, this procedure merely preserves material hardly worth saving. The annihilation or avoidance of a pest...are mere evasions.

However, Sir Howard's most vital findings pertained to the animals feeding on his crops who in turn developed total freedom from disease and deformities.

*For twenty-one years I was able to study the reaction of the) well-fed animals to epidemic diseases such as rinderpest, hoof-and-mouth disease, septicaemia, and so forth, which frequently devastated the countryside. None of my animals were segregated, none were inoculated; they frequently came in contact with diseased stock [literally rubbing noses] No case of infectious disease occurred.*⁵¹

As a summarization of his life work Sir Howard affirmed that “The birthright of all living things is health”, and that this law is applies with equal force to:

*soil, plants, animals and man [in which] the health of these four is one connected chain. Any weakness or defect in the health of any earlier link in the chain is carried on to the next and succeeding links... The failure to maintain a healthy agriculture has largely canceled out all the advantages we have gained in hygiene, housing, and our medical discoveries... If we are willing to conform...to natural law , we shall rapidly reap our reward not only in a flourishing agriculture, but in the immense asset of an abounding health in ourselves an in our children's children.*⁵²

In the Earth are found mysteries that science has barely touched, e.g. a mere on teaspoon of living soil contains more living organisms than the entire human population on Earth, with unnumbered species still unknown to science. It is evident that we need to more fully respect,

understand and relate - as the Creator originally intended - to the fabric of the living system that encompasses all life within, and on the surface of the Earth. This wholistic perspective and assertion is expanded upon by agronomist Mark Anderson in the following excerpt from the classic work he co-authored entitled *Empty Harvest: Understanding the Link Between Our food, Our Immunity, and Our Planet*.

An antibiotic is a plants immune system. Why do we use another species' method...[for] protecting ourselves? We have our own, more-sophisticated internal mechanism for self-defense. Animals and humans do not produce antibiotics, nor do they need to, if their endocrine, immune, and nervous systems have the mineral, vitamin, protein, and enzyme substances found in foods grown on mineral-rich soil.

Our individual immune systems are inescapably linked to the planet Earth, of whose substance we are made. The entire planet Earth, the complete geosphere, has its own functioning immune system, a self-protecting, regenerating, healing system. When we are not integrated in that system, or we harm that system, the inevitable result is our own degeneration...⁵³

In returning to the subject of agricultural “pests”, there is clear evidence that insects have an innate ability to detect mineral imbalances - even at a subtle level - in plants, and selectively devour only those which are imbalanced. According to horticulturist S. Mueller “Satellite photographs of Africa have shown how gigantic flights of locusts will cover thousands of miles ignoring healthy vegetation, then descending and destroying fields where the soil is worn out.”⁵⁴ This and the earlier observations made on the relationship of microbes to disease, parallels the view that pathogenic microorganisms act as nature's sensors, proliferating only when the human host's psycho-physiology has been imbalanced and weakened by factors such as stress, malnutrition, endo and environmental toxins, etc.

THE GROWING DILEMMA OF CHEMICAL FERTILIZATION

The world-wide use of commercial chemical fertilizers and pesticides has increased enormously by factors of 9 and 32 respectively, during the 35 year period preceding the decade of the 90s.⁵⁵ For an appreciation of the impact of this on soil and plant nutrition we should consider the following observation of Chesworth:

Geochemically, farming is a kind of rape, with annual harvests removing plant nutrients one or two orders of magnitude faster than...(natural processes) can replace them...The inherent fertility of soil, a renewable resource, is largely ignored in modern mechanized agriculture in favour of chemical fertilizers ...A saner attitude once existed...and should be re-examined as a possible basis for future strategies.⁵⁶

A highly significant practical concern is the increasingly high costs associated with agrochemical fertilizers, coupled to their incapacity to provide a range of essential micro-nutrients to the soil. Since the energy crises of the seventies, the cost of artificial fertilizer has increased at least three hundred percent, and most Developing World countries are faced by severe restrictions in foreign currency.⁵⁷

A further critical question that is rarely given due consideration is the popularly promulgated belief that synthetically developed chemicals bear no difference from those which naturally occur

in the biosphere. In response to this view, eminently successful horticulturist D. Phillips contends that such a view overlooks the highly vital “life force” factor. In his words “A synthetic chemical can appear to represent a natural one only to the extent that a waxen image is a dummy of its living model.”⁵⁸ It is certainly important for us to ask why it is that chemical fertilizers are still being widely marketed and sought after when their high nitrogen content is today being implicated by bio-scientists as a key causative factor in the escalation of cancer morbidity and mortality world-wide.

PESTICIDE POISONS

Throughout the Developing World, it is estimated that close to a million people are annually poisoned by pesticides, of which 40,000 die. It is also well worth noting in comparison with the developed world, “the incidence of pesticide poisoning is 13 times higher” in the Developing World nations. * To give but one example, in Sri Lanka where there was not a single death from malaria in 1978, in that same year it is estimated that there were 1,000 deaths from pesticide poisoning.⁵⁹

* To better appreciate quantities of pesticide usage, a July 15, 1985 article in *U.S. News and World Report* reported that American farmers were then employing a billion pounds of pesticides annually, which works out to 4 lbs. for each man, women, and child in the United States.

Not only is there an accelerated use of pesticides as pests adapt to and resist these poisons, but the pesticide manufacturers make them ever more deadly. This all seems very strange, when we consider that extensive research conducted by Cornell University Entomologist, David Pimentel (editor of the *Handbook of Pest Management in Agriculture*, CRC Press) and others, confirm that data covering the last four decades indicate a direct cause and effect relationship between pesticide dependency - along with other large scale agribusiness techniques - and highly significant increases in crop losses due to pest damage. “The share of crop yields lost to insects has nearly doubled (7% to 13%) during the last 40 years, despite a more than 10 fold increase in the amount and toxicity of synthetic insecticide used.” As if this wasn't damning enough, it has also been found that “often less than 0.1%” (tenth of a percent) of pesticide applications actually reach the targeted pests.⁶⁰

THE PROMISE OF CLEAN ORGANICULTURE METHODS

Sir Howard's experiences with disease plant immunity had been preceded by such great soil scientists as Julius Hensel in Germany, and Sampson Morgan in England, whose findings were later replicated by Charles Northern, John Hamaker, and Albert Savage in N. America. These scientists employed soil re-mineralization and regeneration techniques, employing the use of ground stone dust or sea vegetation, and green (plant) compost, and the periodic aeration of plant or tree roots through cultivation. The results of this little acknowledged, albeit superior agricultural method has proven to be remarkable. In a semiarid region of the U.S. where the average corn yields were under 25 bushels per acre, Hamaker produced corn yields of 65 bushels per acre. Upon analysis it was found that his corn - in comparison with the corn grown at nearby

farms using standard chemical fertilizers had: 28% more protein; 47% more calcium; 57% more phosphorus; 60% more magnesium; and 90% more potassium. ⁶¹

Savage's experiments revealed results even more pronounced. Marketed spinach grown on ordinary soil contained from 600 to 1,600 parts per billion of iodine, whereas spinach grown on his re-mineralized soils contained as high as 640,000 parts per billion. Testing revealed that various vegetables grown in Savage's "mineral garden" possessed as much as 400% more iron and other minerals than crops grown by standard methods. ⁶² It is estimated that today roughly 100 trace minerals and elements are deficient in human diets in most regions of the world. ⁶³ The importance of various minerals to the maintenance and restoration of human health has been well established in the nutritional and bio-medical research literature. For example a deficiency of just one of the less abundant minerals, zinc is symptomized by the following serious health conditions:

Zinc Deficiency Symptoms

- | | |
|---------------------------|-------------------------------|
| ⇒ Acne | ⇒ Premenstrual Syndrome |
| ⇒ Infertility | ⇒ Mental & Emotional Problems |
| ⇒ Poor Vision | ⇒ Poor Memory |
| ⇒ Stretch Marks | ⇒ Poor Growth in Children |
| ⇒ Allergies ⁶⁴ | |

The "clean organiculture" system bears great promise not merely for preventing disease and degeneration in plants, animals and humans, but as well for alleviating the crippling effects of starvation in the underdeveloped regions of Earth. At the time of one of the earliest pioneers of this method (Sampson Morgan) the average potato yield for the world, stood at about 6 tons per acre, and that of wheat 15 bushels. In his own words he stated that "I broke all records for potatoes...digging fine samples at the rate of 65 tons an acre, a success never achieved by any other experimenter." As for wheat, he was able to produce up to 100 bushels per acre. Morgan's various food crops proved to be of amazing quality and size, e.g. he grew: pear specimens weighing in at two pounds; apples also weighing two pounds (including the largest apple that had ever been recorded at 34-½ oz and exceeding a foot in circumference); onions averaging one pound; and celery up to 40 inches in length. He correctly perceived that the bankruptcy of the soil means the impoverishment of the people; both in nutrient quality and quantity of food provided. Morgan aptly concluded that "The colossal loss of foodstuffs through the present system is criminal". ⁶⁵

In addition to attaining general immunity to disease, and freedom from pests the products of his gardens and orchards became far more impervious to adverse weather conditions, including frost. The shelf life of produce was also greatly extended. ⁶⁶ A further major benefit of clean organiculture - of great significance to more arid regions of Earth - is the fact that porous rock based "mulches" are generally highly potent in reducing evaporation of water from the soil. In fact, evidence suggests that such mulches actually serve to extract "moisture from humid atmospheres". ⁶⁷

SOIL RE-MINERALIZATION - A RETURN TO PRIMEVAL HEALTH CONDITIONS

The necessity of soil re-mineralization is based on the premise that over the millennia the Earth's surface has undergone a progressive erosion and depletion of both its major and trace minerals. Today the only place where the full range of vital minerals can be found is in the seabeds where streams and rivers have carried them, or in the rocks of the Earth. Thus both sea plants and rock dust remain as key resources in strategic efforts to achieve soil regeneration through balanced re-mineralization. As well, the widespread and serious problem of soil erosion and de-mineralization has been vastly exacerbated in this century by "development" policies which support widespread deforestation, massive mono-culture cropping, and heavy agrochemical dependency.

The place of soil re-mineralization - as a fundamental health strategy - is corroborated not only by experimenters in generating plant and animal wellness, but as well in the early fossil records. Evidence indicates that early in Earth's history the soils were rich and fully balanced in mineral matter producing giantism, long life, and pristine health in plants, animals and humans. For example bats the size of sheep, and common dragon flies with a one foot wingspan have been found as fossils. The trees were of vastly greater size and much longer lived than trees on earth today. Paleopathologist Roy L. Moodie has found that "the early faunas were free of disease" and that "the most ancient bacteria were harmless", i.e. non pathogenic in nature. He maintains that "There are no known cases or examples of infection, no tumors, few traumatic lesions or injuries of any kind prior to Devonian" and that "the earliest animals were free from disease." ⁶⁸ Its of interest that the earliest book of antiquity in the Judeo-Christian record, Genesis, gives no account of any specific human diseases, and makes no reference to conditions such as imbecility, blindness, deafness, or other deformities.

MAKING PLANTS IN OUR OWN IMAGE

In reviewing a modern text-book of domesticated crop diseases, one is as appalled by their number and variety as one is by the list of human illnesses in a text-book of medicine. The correlation is remarkable. We find in both a number of deficiency diseases; excess diseases; parasitic diseases; virus diseases; diseases due to insufficient or defective water, oxygen and sunlight; those associated with excessive heat or cold; chemical induced diseases (i.e. spraying/drugging); and last but not least multiple degenerative and deformity diseases. How did the major share of these diseases come into being? By cause, or mere chance? Wrench answers:

I take it that what has happened to man has happened no less to his domesticated plants. Science has effected a marvelous progress in variety and fragmentation, but at the same time it has torn plants from their traditional conditions upon which their health depends...There is, no doubt, I think, that modern man has made plant life in his own image. ⁶⁹

As part of the today's larger shift toward environmental responsibility and sustainability, are the commendable efforts to reduce excessive dependence on soil and plant chemicalization in agricultural methods. However, the growing impetus toward "organic" approaches to agriculture relies heavily upon manure fertilizers. On this point H. Shelton comments that "...it has long been known that heavy manuring of the soil results in the plants grown thereon being subject to parasitic infestation because of their lack of health." ⁷⁰

Morgan also contends that fertilizers derived from stable manure or of animal origin (as well as chemicals), were significantly injurious to the health of soil and plants. In fact, he maintains that their widespread use has served to create conditions of disease and degeneration consecutively in soil, plant, animal and human life. He maintained that susceptibility to disease is highly evident with "large dressings of dung. It is the main cause of gungoid infections of plants...and bad eyesight, bad teeth, and kindred troubles in human beings" As for chemical fertilizers, he found that "they often deplete the soil of its fertility and induce acidity".⁷¹ His experimental work in England in the early part of this century, closely paralleled those of Sir Howard in India. The farms surrounding his own - all employing conventional methods - were struck again and again over the years by multiple forms of disease and a variety of pests. Morgan's vast fruit orchards, vegetable gardens and grain fields thrived, totally immune to these perennial problems.⁷²

Another notable and much more recent horticultural experimenter who bears mentioning is Australian David Phillips. In his outstanding book *From Soil to Psyche*, he maintains that when plants are deprived of vital organic and mineral nutrients and instead are stimulated to undergo enforced growth - as in the case of chemical fertilization - such plants "react by a wild development of cellular structure which is deficient in trace elements and amino acids." He goes on to affirm that:

*Such poorly constituted crops cannot avoid, and must inevitably attract, any prevalent form of disease. At our own organic farms, not one papaya tree was lost during the severe disease epidemic of 1973 which followed Eastern Australia's 1972 partial drought. Every newspaper reported the severe plant losses of up to 90 percent of plantations from three strains of virus... It was no strange or mystical phenomenon that our farm, with its organically mulched plants, registered not even a decline in crop production while other farmers in the district were bemoaning their huge losses.*⁷³

We have entered an era where fruit and vegetable agriculture has become crude and massive attempt to impose on nature the industrial mass production system model. The result is that around the earth - in both Developed and Developing World countries - we have rapidly dying soils that have become little more than chemical blotters, while ever more deadly and costly toxins are routinely sprayed on the fields in a futile effort to short circuit nature's own attempts to safeguard us from ingesting the largely deficient and degenerated end products.

The very integrity of human heredity and genetics is maintained precisely to the degree elemental deficiencies in the Earth are prevented. The natural Creation at all levels is embedded by the Creator with immutable order, a purposeful balance, and higher wisdom. It is thus clear that to maintain a cooperative and regenerative healing relationship with the natural life systems and forces of Earth - as the basic and constructive provider of life - represents the highest and most essential strategy for effecting the psycho-physiological regeneration of humankind. Simply stated, "sick soils mean sick plants, sick animals, and sick people." (*U.S. Senate Doc. 64*). This applies to both physical and mental sickness for after all the mind - though more complex - is but a physical instrument of the body, and intimately dependent on the nutrient richness, vitality and purity of the blood supply.

There is ample evidence to draw the conclusion that it is of the highest importance and urgency that health and development ministries in both the Developed and Developing World nations

should henceforth predicate their strategic policies, planning and resource allocations upon a practical recognition that the treatment and condition of the Earth's soils is by far the most critical determinant of health whether in plants, animals, or human beings. It must be remembered that without health there can be no real or enduring development.

SECTION V. KEY NUTRITIONAL MEASURES IN PREVENTING AND REMEDIATING INFECTIOUS DISEASE

Until lately disease was regarded as a sin of commission by some unseen and subtle agency. The vitamins are teaching us to regard it...as a sin of omission on the part of civilized and hyper-civilized man. By our habit of riveting our attention on microbes and their toxins we have sadly neglected... our own bodily defenses.

Prominent British Physician - Leonard Williams

Indeed, it seems remarkable that some of the most significant experimental and clinical based research literature that exists on the relationship between nutrition and infectious disease were published in the first half of the 20th century, with much of this early and now largely forgotten applied research detailing the considerable preventive and therapeutic values of the newly discovered vitamins. Given the vast scope and complexity of the subject, for brevity's sake the examination of nutrition and infectious disease in this section will necessarily be limited to an examination of the two vitamins which both clinical research and practice have revealed as holding the most significant role in the prevention and alleviation of various human infectious diseases, i.e. Vitamins A and C.

VITAMIN A

Vitamin A is recognized as an essential nutrient for maintaining normal physiologic functions, including cellular differentiation, membrane integrity, vision, immunologic responses and growth. Literature dating back as far as the 1920s has noted an association between Vitamin A deficiency and an increased incidence and severity of infection,⁷⁴ which led to the labeling of Vitamin A as the "anti-infective vitamin" by Clausen.⁷⁵ In more recent time, Vitamin A deficiency has received considerable attention in international health circles. This has been largely due to various field studies which have linked Vitamin A deficiency with an increased risk of childhood morbidity and mortality in the Developing World.^{76, 77, and 78}

Of these (ref. 77) it was observed by field researchers that preschool children with mild xerophthalmia (night blindness and bitot's spots, a Vitamin A deficiency condition) were dying at a rate ranging from 4 to 12 times greater than that of neighboring children with normal eyes and vision. In fact such relationships persisted even after stratifying for the presence or absence of respiratory disease, protein energy malnutrition, or diarrhoea. The researchers asked but did not answer why mildly Vitamin A-deficient children died at such increased rates, "especially those who were [apparently] well nourished

THIS SECTION BRINGS TOGETHER SOME OF THE KEY RESEARCH THAT HAS BEEN ACCORDED TO THE ROLE OF NUTRITION AS A PIVOTAL FACTOR IN THE PREVENTION AND TREATMENT OF INFECTIOUS DISEASES. GIVEN ITS SIGNIFICANCE TO HUMAN HEALTH ISSUES IN THE DEVELOPING WORLD, IT WILL BE DEALT WITH IN SOME DETAIL.

and seemingly free of diarrhoea and respiratory disease”, which are considered the major causes of childhood mortality in developing countries. *

* This represented an 18 month longitudinal study of 4,600 Javanese (Indonesian) preschool children from six separate communities.

The first major controlled field study to be published in an established medical journal detailing an observed relationship between Vitamin A deficiency and infectious disease, ^(see ref. 78) reported on the results of a randomized, community trial of Vitamin A supplementation in northern Sumatra (Indonesia). 450 villages were randomly assigned to either participate in a Vitamin A supplementation scheme (229 villages), or serve for one year as a control (221 villages). The study observed that among children aged 1 to 6 years at baseline, the death rate in the 221 control villages - which did not receive the vitamin nor any placebo - was 49% greater than in those villages where supplementation was given. (Although the study was actually designed to examine nutritional blindness, these unanticipated results were found when comparing mortality rates between the treatment and the control villages)

Despite such promising findings, the posture of the medical community has generally been one of either questioning the “validity” of the research methodology and findings, or of putting the brakes on initiating any actual policy and or programming changes. To quote a 1990 statement of Kjolhede and Gadomski of Johns Hopkins University in response to the various Sommer et al studies:

Because scientific evidence relating to Vitamin A is being generated by diverse sources, and because there is a paucity of data strictly relevant to childhood survival in developing countries, the implications of these and other findings have been difficult to translate into specific policies and programmatic recommendations. ⁷⁹

According to secondary research carried out by Mamdani and Ross, and reported in their exhaustive article "Vitamin A supplementation and child survival: magic bullet or false hope?", ⁸⁰ Vitamin A deficiency represents “a major nutritional problem among preschool children in many countries of Africa, Asia, as well as some areas of Central and South America.” In fact an estimated 250,000 young children will go blind each year due to a lack of Vitamin A in their diets, while another 250,000 will experience lesser degrees of permanent impairment of vision due to corneal damage, * with up to 75 percent of the blinded children dying within a few months of the blinding episode. The literature indicates that the association between “severe Vitamin A deficiency and infant and child mortality has been established for some time.”

* According to West and Sommer, an estimated 700,000 preschool children will develop active corneal lesions; and 6,700,000 new children will manifest mild Vitamin A deficiency annually. As well - at any one time - an estimated 20 to 40 million are suffering from mild levels of Vitamin A deficiency. ⁸¹

The authors go on to conclude that:

An association between Vitamin A deficiency and infectious diseases, in particular diarrhoea, respiratory infections and measles - which are among the most important

causes of death during childhood in the Developing World - has significant policy implications... Overall, the balance of evidence suggests that Vitamin A deficiency does lead to an increased risk of infections such as measles, respiratory infections and diarrhoea, and hence to an increased risk of death. Conversely, the evidence suggests - but as yet does not prove conclusively - that Vitamin A supplementation, or other strategies for improving Vitamin A status, would lead to a decrease in the incidence and/or the severity of these infections and of the substantial mortality associated with them. The magnitude of this potential... may be substantial. ⁸²

Other strategies for supplementation include the fortification of selected commercial foods which are commonly consumed, and dietary modifications. The latter measure includes a "long term solution", i.e. the increased production of Vitamin A-rich foods through home, school, and community gardens, wherever climate and soil conditions permit. An example where the increased production and distribution of garden produce - coupled to basic nutrition education - worked well was the Applied Nutrition Program in Tamil Nadu, India. Mothers diagnosed as anemic and Vitamin A deficient were given access to this produce. Examination, after six months, revealed "considerable" improvements to their general nutritional status, along with the "disappearance of all the clinical signs of Vitamin A deficiency". ⁸³ It is encouraging that by the late 80s the following nations had already adopted home gardening as a national priority: Barbados, Chile, Colombia, Dominica, Honduras, India, Indonesia, the Philippines and Sri Lanka. ⁸⁴

VITAMIN C

In introducing the subject of Vitamin C, it would be fitting to share the following observation made by the Australian microbiologist/physician team of Dettman and Kalokerinos, who over many years have conducted wide ranging research - both secondary and original - on the prophylactic and therapeutic potential of Vitamin C.

If you were offered a substance that could assist with the endogenous production of interferon and PGE1, that activated enzyme systems, assisted with mineral uptake and collagen production, aided healing, prevented capillary fragility and stimulated renal function, was capable of curing both viral and bacterial infections, was a universal detoxifier effective against drugs and venomous bites and was currently being used more and more in the treatment of degenerative diseases, you would rightly scoff. More particularly if you were told that this substance was Vitamin C, yet all these claims and more have been documented and put to clinical trial. ⁸⁵

As we go on to examine what is indeed a vast body of experimental and clinical data on Vitamin C, we find that there are indeed substantive evidences for its efficacy as a low cost, perfectly safe, and wide spectrum anti-viral, anti-toxic and anti-bacterial agent. Internationally noted biochemist Irwin Stone has alone described and documented a wide range of applied bio-medical research and clinical experience - employing 122 literature citations - spanning a 40 year period showing its marked efficacy as a prophylactic and therapeutic agent. ⁸⁶ In obtaining and reviewing a number of the original source documents cited by Stone - relative to Vitamin C and the infectious diseases - it was both amazing and perplexing that so little of this vital knowledge which was discovered earlier in this century is being further researched and or utilized today.

I. VIRAL INFECTIONS

Within a relatively limited timeframe after the 1933 discovery of ascorbic acid (Vitamin C) and its identification as an anti-scorbutic (scurvy) substance, a diverse range of researchers found that ascorbic acid had significant potential as a wide-spectrum antiviral agent. Throughout the 30s in rapid succession:

- ⇒ Jungeblut showed that ascorbic acid would inactivate the virus found in poliomyelitis; ⁸⁷
- ⇒ Holden and Molley, inactivation of the herpes virus; ⁸⁸
- ⇒ Lagenbusch and Enderling, inactivation of the virus found in hoof and mouth disease; ⁸⁹ and
- ⇒ Amato, inactivation of the rabies virus. ⁹⁰

It should be noted that Jungeblut observed that the “antiviral” effect of Vitamin C is not due to the acid reaction of the ascorbic acid, since it occurs also when the latter has been adjusted to a pH at which the virus remain “unharmred”. ⁹¹

Jungeblut continued his experimental work at Columbia University with primates in which he demonstrated that a scheduled administration of ascorbic acid both enhanced resistance to poliomyelitis, and in cases of infection markedly reduced the severity of the disease. His experiments also demonstrated a very marked superiority in the level of effectiveness of natural source ascorbic acid, versus the laboratory synthesized product. For example in one experimental series, “the percentage of non-paralytic survivors following treatment with natural Vitamin C was about six times as large as that of the untreated controls.” Whereas “In the animals treated with synthetic Vitamin C this percentage was only twice that of the controls.” ⁹² (Despite such promising early findings, no serious or systematic efforts were made by organized medicine during this historical time period to incorporate the Vitamin As a prophylactic or therapeutic agent.)

However, the later results achieved in the direct clinical practice of North Carolina physician F. Klenner approached the extraordinary. He graphically describes - from his own medical practice and other reputable sources - the substantive efficacy of Vitamin C in preventing and or reversing serious pathological and life threatening conditions which literally extend over “the entire gamut of medical knowledge”.

The list which follows on Table XII. beginning on top of the next page suggests the range of conditions as described in this and other journal articles by Klenner. Although viral related conditions are being discussed in this section, a few bacterial diseases have been included in this list and are italicized for identification (some serious toxic and degenerative conditions are also included).

TABLE XII
CONDITIONS SUCCESSFULLY PREVENTED AND
OR REMEDIATED EMPLOYING VITAMIN C

- | | |
|---------------------------------------|---------------------------------------|
| ▪ infectious hepatitis | ▪ virus pneumonia |
| ▪ influenza | ▪ <i>diphtheria</i> |
| ▪ virus encephalitis | ▪ <i>bacillary dysentery</i> |
| ▪ poliomyelitis | ▪ <i>pertussis (whooping cough)</i> |
| ▪ measles | ▪ chicken pox |
| ▪ parotitis (mumps) | ▪ <i>tetanus (lockjaw)</i> |
| ▪ mononucleosis | ▪ rheumatic fever |
| ▪ scarlet fever | ▪ botulism |
| ▪ heavy metal intoxication | ▪ poison insect, spider & snake bites |
| ▪ trichinosis * | ▪ barbiturate poisoning |
| ▪ malignancies | ▪ post-operative deaths (avert) |
| ▪ childbirth labor (ease and shorten) | ▪ postpartum hemorrhages (prevent) |
| ▪ cardiovascular diseases | ▪ peptic and duodenal ulcers |
| ▪ pancreatitis | ▪ severe burns (external treatment) |
| ▪ radiation sickness | ▪ carbon monoxide poisoning |

▪ 93

In Klenner's successful reversal of trichinosis, a combination of Vitamin C and para-aminobenzoic acid were used.

Writing in an early article published in the *Journal of Southern Medicine and Surgery*, he ascribes the relative limitations in success as attained in much of the earlier experimental results with Vitamin C, to the very low dosage levels used. Conversely, the key to his unprecedented clinical achievements lay in the much higher dosage he administered. He comments:

*The years of labor in animal experimentations; the cost in human effort and "grants", and the Volumes written, make it difficult to understand how so many investigators could have failed in comprehending the one thing that would have given positive results [i.e. to the degree Klenner attained]... This one thing was the size and frequency of its administration.*⁹⁴

In the same article he goes on to describe:

- ⊕ a measles epidemic in which "Vitamin C was used prophylactically", in which without exception all who received 1 gram every six hours either intravenously or intramuscularly "were protected from the virus".

- ⊕ 60 acute cases of poliomyelitis, (the diagnosis was confirmed by lumbar puncture, with cell counts ranging from 33 to 125) for the first 24 hours, 1 to 2 grams - depending on age - of Vitamin C was administered every second to fourth hour (intramuscularly in children up to four years). For the following 48 hour period the 1 to 2 gram dosage was given only every sixth hour, with all 60 patients diagnosed “clinically well” within 72 hours from the commencement of treatment.
- ⊕ Six cases of virus encephalitis were similarly treated with Vitamin C injections, and all without exception made dramatic recoveries.
- ⊕ Diphtheria patients were treated using the same intensive treatment method and fully recovered “in half the time required to remove the membrane and get negative smears by antitoxin.”⁹⁵

Summarily, Klenner could well affirm that “we have been able to assemble sufficient clinical evidence to prove unequivocally that Vitamin C is the antibiotic of choice in the handling of all types of virus diseases.” As well he demonstrated - through trial and experimentation - that where tissue levels of the Vitamin are maintained, an environment that is extremely unfavorable for virtually all forms of viral infection is created in the human body.⁹⁶

II. BACTERIAL INFECTIONS

Within five years of the discovery of Vitamin C, research studies were being published in the medical literature on the clear association between scurvy (evidencing Vitamin C deficiency) to a range of infections (both bacterial and viral) in guinea pigs and humans.⁹⁷ Beginning in this same time period other applied researchers discovered that ascorbic acid has both bacteriostatic (inhibiting) and bactericidal (destroying) properties. For example, researchers Gupta and Guha, demonstrated that 2 mg. percent (equivalent to 2 parts of Vitamin C to 100,000 parts of bacterial suspension) inhibited staphylococcus aureus, and B. typhosus. The same inhibitive effect was produced at 5 mg. percent for B. diphtheria, and streptococcus hemolyticus.⁹⁸ Whereas Sirsi reported that 10 mg. percent was sufficient to destroy virulent strains of M. tuberculosis.⁹⁹ Other researchers found that Vitamin C was effective in completely neutralizing and rendering harmless a wide range of bacterial toxins. These included:

- diphtheria - Jungeblut and Zwemer;¹⁰⁰
- tetanus - Jungeblut;¹⁰¹
- staphylococcus - Kodama and Kojima;¹⁰² and
- dysentery - Takahashi.¹⁰³

In a revealing nutritional status survey conducted close to mid-century on the aboriginal population in Northern Manitoba (Canada), it was found that the most prevalent micro-nutrient deficiency was Vitamin C, i.e. on average less than 1/71 the recommended daily allowance. At the time, the death rate from tuberculosis among this group stood at 1,400 per 100,000 in

comparison to 27 per 100,000 in the white population. The researchers concluded, "...it is probable that the Indian's great susceptibility to many diseases, paramount amongst which is tuberculosis, may be attributable...to their high degree of malnutrition arising from lack of proper foods." ¹⁰⁴

Charpy reports on a clinical trial where 15 grams of Vitamin C was administered daily to a group of extremely advanced (terminal) Tuberculosis patients. (Of the six to be tested one actually died before the trial could begin). The five patients who were fortunate enough to receive this treatment, all underwent a spectacular transformation in their general condition, and not only left their beds, but within a six to eight month period had regained from 20 to 70 pounds in body weight. As an added point of interest, each patient had cumulatively taken about 3 kilograms (3,000,000 milligrams) of Vitamin C during the test period with absolute safety and perfect tolerance. ¹⁰⁵

Hochwald employed injections of 1/2 gram of Vitamin C every one-and-a-half hours (6 grams in a 12 hour period) in croupous pneumonia until the fever and local symptoms subsided. The speed with which this treatment worked was so rapid that it was actually possible within the first day to practically eliminate all local symptoms of infection including the fever, and to attain a normalization of blood counts. ¹⁰⁶

Two articles in the Canadian Medical Association Journal reported on oral Vitamin C therapy - i.e. 1/2 gram the first day, followed by an average 1/5 gram each day thereafter - on 29 Pertussis (Whooping Cough) patients. The researchers concluded that "this treatment markedly decreases the intensity, number and duration of the characteristic symptoms." ¹⁰⁷

In DeWit's clinical experimentation in the Netherlands 1/2 gram of Vitamin C was administered daily in the treatment of children with Pertussis for a period of one week, after which it was gradually reduced stepwise. Of the 90 children treated (who were divided into 3 comparable groups) the duration of the illness was 15 days for those receiving the vitamin injections, 20 days for oral recipients, and 34 days for the control group who did not receive the vitamin in any form, but had alternately received the newly developed vaccine. ¹⁰⁸

Other clinical trials on the successful reversal of human bacterial infections by Vitamin C exist in the bio-medical literature, e.g. in the treatment of leprosy, typhoid fever and dysentery. In these various reports, without exception, the speed and level of success as reported correlates directly with the amount of dosage administered. ¹⁰⁹

III. CONCLUSION

Not unlike earlier clinicians who employed Vitamin C prophylactically and therapeutically, R. Cathcart's extensive clinical experience led him to conclude that proportional to the level of Vitamin C depletion, there would follow human immune system failure, consequently increasing the susceptibility and potential manifestation of a wide range of disorders including various acute, secondary, and chronic infections (viral and bacterial), allergic reactions, inflammatory and collagen diseases, as well as an impaired ability to heal. ¹¹⁰

Two time Noble Prize Laureate Linus Pauling affirmed that he is "astonished" that:

...in the last quarter of the twentieth century a single substance would be recognized to be helpful no matter what disease a person is suffering from....Vitamin C is such a substance...by its involvement in many biochemical reactions in the human body it makes the body's natural defenses more powerful, and it is these natural defenses that provide most of our resistance to disease. ¹¹¹

In considering the practical implications and strategic importance of the knowledge of Vitamin C relative to the issue of child survival in the Developing World, it would be worthwhile to conclude this discussion of Vitamin C with the following summarization of Canadian Physician W. McCormick.

From increasing evidence of the anti-toxic and anti-infectious action of Vitamin C, and from personal clinical experience in the prophylactic and therapeutic application of this vitamin, the author is firmly convinced that the major factor in bringing about ... [the major decline in] infectious disease incidence has been the steady and phenomenal increase in the consumption of vitamin C-rich fruits...during the period in question.

In many cases of deficiency, where the dietary intake indicates a subnormal intake of Vitamin C over a lengthy period, the correlated clinical history shows repeated occurrence of infectious processes....The author has made intensive application of vitamin-C therapy, orally and parenterally, in many... infectious diseases,...with results in every case even more rapid and favorable than could be expected from the use of the modern antibiotics, and with the added advantage of complete exemption from toxic or allergic reactions. ¹¹²

A NEW AND BETTER STRATEGY FOR REVERSING INFECTIOUS DISEASE

From the foregoing evidence it is clear that a markedly greater emphasis on the development of home, school, and community horticultural and gardening crop production of Vitamin A and C rich foods - designed to increase local consumption - coupled to appropriate community nutrition education campaigns, could in and of itself make significant inroads in reversing the phenomena of infectious disease in today's Developing World. As well the usage of Vitamins A and C should become an integral element in the curricula of medical schools, and be progressively employed as key preventive and therapeutic resources in Primary Health Care practice throughout the world.

SECTION VI. EMPLOYING NUTRITION AND OTHER WHOLISTIC MEASURES IN PREVENTING AND REMEDATING HUMAN DISEASE

*The true physician is an educator...a guardian of both physical and moral health...
The only hope of better things is in the education of the people in right principles.
Let physicians teach the people that restorative power is not in drugs, but in nature.
Disease is an effort of nature to free the system from conditions that result from a
violation of the laws of health. In case of sickness, the cause should be ascertained.
Unhealthy conditions should be changed, wrong habits corrected. Then nature is to
be assisted in her effort to expel impurities and to re-establish right conditions in the
system...Pure air, sunlight, abstemiousness [moderation], rest, exercise, proper diet,
the use of water, trust in divine power - these are the true remedies. Every person
should have a knowledge of nature's remedial agencies and how to apply them.*

Ellen G. White in Ministry of Healing, 1905, pp. 127 and 128

OVERVIEW AND SUMMARY OF THE EVIDENCE

To summarize and conclude the vital issue of what constitutes a more appropriate policy alternative in the effective prevention of human disease - whether infectious or degenerative - we must return to what are the original and thus fundamentally legitimate sources of physical, mental, and socio-spiritual health. Health, like the “environment”, is an actuality a non-discipline. The unimpaired wholeness and balance that the term implies is simply the end result of human beings interacting on and with the natural, social, and spiritual realities of life in this world as the Creator originally designed that we should. It is the multiple artificialities, and the short sighted, self-serving aberrations of modern society (including the widespread promotion and marketing of unnatural, over-processed and fabricated foods and medicines, and the concurrent denial of immutable moral laws and spiritual values) that constitute the fountain head of widespread degeneration and decay.

There is today abundant evidence confirming the fact that the Creator ordained requisites of life, when properly understood and applied, are not only effective in preventing and reversing all of the infectious diseases, and the full range of degenerative diseases (including those deemed “incurable” by Western Selective Medicine), but as well the social diseases. Having in the preceding section already reviewed two key nutrient factors in relation to the prevention and cure of infectious disease, what follows is a concise cross-sampling of important but little known research which demonstrates the role of other nutrition and nature based factors in strengthening natural immunity, safeguarding health, and ensuring long life.

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| <p style="text-align: center;">TAKEN AS A WHOLE, AND AS FITTING CAPSTONE TO THE PAPER, THIS SECTION SEEKS TO AFFORD THE CRITICAL PERSPECTIVE THAT ALL FORMS OF HUMAN DISEASE - AS WELL THE PREFERRED CONDITIONS OF HUMAN HEALTH AND WELLNESS - ARE CAUSED NOT BY ANY SINGULAR FACTOR, BUT RATHER BY MULTIPLE FACTORS WORKING TOGETHER, I.E. SYNERGISTICALLY.</p> |
|--|

- a) Recent studies have documented that even subclinical levels of “malnutrition and deficiencies of vitamins, minerals and trace elements” have been linked to the “impairment of immune responses”¹¹³, and a broad range of diseases such as various cancers, osteoporosis, high blood pressure, diabetes, infertility. It follows that the adequate and regular provision of the full complement of such minerals and vitamins will effectually prevent the selfsame disease conditions.¹¹⁴
- b) A reduction in dietary fat in humans, correlates with a general strengthening of protective killer cell activity.¹¹⁵ and is effective in reversing atherosclerosis, arteriosclerosis, heart disease and stroke, and is a primary preventive against various cancers¹¹⁶
- c) -290"Stressful conditions can profoundly suppress the body’s natural immune responses of blood and splenic lymphocytes, including protective killer cell activity, and the production of beneficial interleukin-2 (IL-2) and interferon, and IL-2 receptor expression.”¹¹⁷ (Interferon is known to arrest the reproduction of pathogenic viruses, and is vital in reversing many forms of viral infection including hepatitis, chicken pox, herpes simplex and zoster, etc.)¹¹⁸
- d) Alcohol is an "immunosuppressive drug with far reaching consequences", e.g. it significantly impairs the body’s inherent defense system against pathogenic bacteria, and adversely affects cell-mediated natural immunity, thereby increasing risks for viral infections, tuberculosis, and neoplasia (tumor formation).¹¹⁹ Alcohol inhibits the normal function of protective B lymphocytes, with as little as 3 ounces (2 drinks) reducing antibody production to 1/3 normal amounts.¹²⁰ It has been documented that there is increased susceptibility to HIV’s (AIDS associated retrovirus) rapid growth when even moderate intake levels (e.g. 4 beers) are taken, with such immune suppression lasting 3-7 hours with T cells producing less interleukin-2, and T-suppressor cells producing less of the soluble immune response suppression factor.¹²¹
- e) Smoking of cigarettes weakens the body’s entire host defense system against pathogenic bacteria and viruses, including the impairment of macrophage function.¹²²

CONFIRMED BENEFITS OF KEY NATURE BASED INTERVENTIONS

1. EXERCISE

Evidence suggests that physical exercise can enhance protective killer cell function; and elevate natural interferon, serum leukocyte, and interleukin-1 levels. (Interleukin-1 enhances both B and T lymphocyte activity, and is thus involved in the body’s initial response to all forms of infection and inflammation.)¹²³ A study involving 656 men found that a program of regular and vigorous exercise led to an average numeric reduction in blood pressure levels by 15 percent. Also exercise was found to reduce the amount of insulin required in diabetes. It also is extremely effective in effecting stress reduction.¹²⁴

2. SLEEP (REST)

Even brief periods of sleep deprivation (as little as 7 hours) have been linked to dramatic decreases in the body’s basic immune system responses, thus adequate sleep is considered vital in prevention of the infectious diseases.¹²⁵

3. SUNLIGHT

Bodily exposure to ultraviolet rays as found in natural sunlight, significantly strengthens the overall immune system. For example:

- it increases the number of lymphocytes, antibodies (mostly gamma globulins), and lymphocyte produced interferon. As well, the effectiveness of neutrophils in engulfing pathogenic bacteria can be at least doubled; ¹²⁶
- a 12 year study of male college students revealed that only 10 minutes of irradiation with ultra violet light, up to 3 times weekly during the winter months, reduced colds by up to 40.3 percent; ¹²⁷ under similar treatment during Winter, there was observed a greatly increased resistance to a range of infectious diseases in Russian school children. ¹²⁸
- The current medical concept seeks to portray a sun that is destructive to human health, i.e. responsible for accelerating the aging of the skin, and the prime causative factor behind the now endemic onset of skin cancers. However, extensively documented research on the health effects of both sunlight and nutrition clearly point to the fact that "the highly refined western diet plays the leading role, both in the aging process and in the development of skin cancer". ¹²⁹
- Dramatic results have been achieved and documented in the treatment and reversal of a broad range of diseases with sunlight (this treatment termed heliotherapy), including blood poisoning, childbirth infections, peritonitis, viral pneumonia, and mumps. ¹³⁰
- Directly researched beneficial effects of sunlight include: lowers elevated blood pressure; decreases cholesterol in the blood stream; normalizes blood sugar levels in both diabetic and hypoglycemic conditions; increases endurance by enhancing the blood's delivery of oxygen to the tissues and the lessening of lactic acid in the tissues; decreases resting heart and respiratory rates thus enhancing longevity; increases the efficiency of the heart (in one study the output of blood from the heart increased by 39 percent, and lasted five or six days, due to one ultraviolet exposure); and increases resistance to cancer. ¹³¹

4. FASTING

The practice of fasting has existed as a practice in virtually all cultures and societies throughout human history as a means of attaining physiological, mental and spiritual renewal and healing. It was likely first adopted by man through observation of the animal kingdom where fasting is resorted to as an instinctive and primary means of recovery in times of injury, sickness, or great stress. It is important that we distinguish the difference between fasting and starving. Starving is the harmful result of food denied when the human system is clamoring for sustenance; whereas fasting is the intentional abstinence from food by a suffering system that is non-desirous of sustenance until rested, cleansed, and ready for the labors of digestion and assimilation. Although fasting remains as a largely neglected and little understood practice today, it is important to bear in mind that it has been employed over the millennia - and as well throughout

this century - as a primary and highly effective means of prevention and recovery from virtually all forms of disease.

TABLE XIV, which follows below provides a highly condensed summarization of the multiple physiological and mental benefits of therapeutic and regenerative fasting.

TABLE XIII. PSYCHO-PHYSIOLOGICAL EFFECTS OF FASTING

- i. IT GIVES THE VITAL ORGANS A COMPLETE REST.
- ii. IT EMPTIES THE DIGESTIVE TRACT AND DISPOSES OF PUTREFACTIVE BACTERIA.
- iii. IT AFFORDS THE ORGANS OF ELIMINATION AN OPPORTUNITY TO CATCH UP WITH THEIR WORK AND PROMOTES ELIMINATION.
- iv. IT RE-ESTABLISHES NORMAL PHYSIOLOGICAL CHEMISTRY AND NORMAL SECRETIONS.
- v. IT PROMOTES THE BREAKING DOWN AND ABSORPTION OF ABNORMAL GROWTHS, EXUDATES, EFFUSIONS, DEPOSITS, AND "DISEASED" TISSUES.
- vi. IT RESTORES A YOUTHFUL CONDITION OF THE CELLS AND TISSUES AND REJUVENATES THE ENTIRE BODY-MIND COMPLEX.
- vii. IT PERMITS THE CONSERVATION AND RE-CANALIZATION OF ENERGY.
- viii. IT INCREASES THE POWER OF DIGESTION AND ENHANCES THE BODY'S ABILITY TO ASSIMILATE NUTRIENTS.
- ix. IT CLEARS AND STRENGTHENS THE MENTAL POWERS, WITH A CORRESPONDING INCREASED ACUITY IN THE FIVE SENSES;
- x. IT ENHANCES ALL OF THE INTEGRAL FUNCTIONS OF THE BODY-MIND COMPLEX. ¹³²

(THE AUTHORITY FOR THIS TABLE IS DR. H. SHELTON, WHO - OVER SEVERAL DECADES - IN THIS CENTURY CLINICALLY CONDUCTED APPROXIMATELY 50,000 THERAPEUTIC FASTS.)

In the clinical practice of James McEachen of Escondido California, a careful record was kept of the impact of therapeutic fasting on over 715 of his patients. This record included a wide diversity of serious diseases, many of which were degenerative "incurable" conditions such as arthritis, heart disease, colitis, multiple sclerosis, and cancer. The results were very impressive with 654 (88.4 percent) either fully recovered or improved. ¹³³

Other practitioners such as William Esser of Palm Beach, Florida (in my last discussion with him he stated that his prospective patient waiting list was backed up about 18 months) reports that despite the fact that on average only 20 percent of his thousands of previous patients were able to stay and fast as long as recommended, a partial survey sample found that the rate of complete recoveries - averaging all cases treated - was just over 70 percent. Many of the disease conditions treated were of a very serious and intractable nature, including Parkinson's disease, epilepsy, arthritis, and cancer. ¹³⁴

Table XV. which follows, outlines the results of therapeutic fasting on 443 cases at the Pawling Health Manor at Hyde Park, New York. (More serious disease conditions have been selected for inclusion in this table as these would likely prove of greater interest to the reader.) Clinic Director Robert Gross explained that a sizable number of the patients were unable to remain long enough to undertake a fast, or periodic fasts of sufficient length. This was considered a key reason why a number of cases either fell short of total recovery, or did not measurably respond. Even so, taken overall (i.e. based on 682 recorded cases), their fasting therapeutic program demonstrated a recovery rate of 71.2 percent, a partial recovery rate of 24.2 percent, and a failure rate of 4.6 percent.¹³⁵

TABLE XIV. CLINICAL RESULTS OF THERAPEUTIC FASTING
PAWLING HEALTH MANOR DATA

| <u>DIAGNOSED DISEASE CONDITION</u> | <u>NUMBER OF CASES TREATED BY FASTING</u> | <u>NUMBER OF CASES FULLY RECOVERED</u> | <u>NUMBER OF CASES NO MEASURABLE RESPONSE</u> |
|------------------------------------|---|--|---|
| HIGH BLOOD | 54 | 38 | 0 |
| ARTHRITIS | 42 | 28 | 4 |
| HEPATITIS | 36 | 34 | 0 |
| GOITER | 33 | 18 | 3 |
| HEART DISEASE | 31 | 18 | 0 |
| MENTAL DISORDERS | 29 | 19 | 0 |
| BRONCHITIS | 24 | 22 | 1 |
| COLITIS | 23 | 11 | 0 |
| HAY FEVER | 22 | 7 | 0 |
| PYORRHEA | 20 | 8 | 0 |
| ASTHMA | 19 | 16 | 3 |
| ULCERS | 14 | 8 | 2 |
| DIABETES | 14 | 12 | 0 |
| KIDNEY DISEASE | 12 | 10 | 0 |
| GALLSTONES | 11 | 6 | 0 |
| ANEMIA | 11 | 7 | 0 |
| GONORRHEA | 8 | 8 | 0 |
| POLIOMYELITIS | 8 | 6 | 0 |
| APPENDICITIS | 6 | 6 | 0 |
| EPILEPSY | 5 | 3 | 0 |

CASES THAT TELL THE STORY

SOCIAL MALAISE

In the early 80s the Canadian Aboriginal community of Kiphtakaw in Northern Alberta (not unlike many other Aboriginal communities in North America) had lost control of its own destiny, and children. The bleak conditions in the community included:

- virtually every home in some way being adversely affected by alcohol or drug abuse, coupled with an annual unemployment rate of 87 percent;
- in the local K-12 school the dropout rate was essentially 100 percent (there had been only one high school graduate in 15 years);
- out of all the children enrolled in 1981-82 testing revealed that only two were actually performing at the proper grade level or above;
- attendance at the school was averaging below 50 percent;
- most of the children over the age of 12 were abusing alcohol, drugs, or both;
- suicides and attempted suicides were problematic; and
- there were over 30 adolescent pregnancies a year.

Beginning in 1982 the community decided to take direct control over the education and development of its young people, with such process taking the next several years to successfully implement. A 1987 Government of Canada evaluation revealed a model program now operated by the community which included features such as:

- i. the successful integration of traditional Indigenous culture and life values into the overall curriculum, which includes beginning each day with a spiritual ceremony and a continuing emphasis on developing character attributes such as compassion, sharing, self-discipline, order, and determination;
- ii. the encouragement of sound dietary knowledge and practice as an alternative to junk foods;
- iii. highly individualized attention and instruction being provided using a low pupil-teacher ratio;
- iv. hands on training which includes encouraging students to undertake the role of peer teaching and school administration; and
- v. the creation of 25 new jobs in the community, with 80 percent of the staff being aboriginal.

The impact of this community's effort has been nothing short of phenomenal:

- ✓ Attendance increased from 50 percent (and lower) to 93 percent;
- ✓ Once serious levels of school theft and vandalism (previously averaging a loss of roughly \$2,500 annually) have become negligible, with locks practically unnecessary;
- ✓ Adolescent pregnancies have dropped from a rate of over 30 a year, to a recent level of one;

- ✓ Teenage alcohol and drug abuse has undergone a truly dramatic decline, while alcohol abuse has lessened in the community at large; and
- ✓ No more suicides or attempted suicides have occurred since the community took control. ¹³⁶

ARTERIOSCLEROSIS BASED BLINDNESS

This case involved a case of total blindness arising from arteriosclerosis in a 40 year old man (This is not an uncommon consequence of degenerative hardening of the arteries). A team of orthodox physicians diagnosed the case as toxic neuroretinitis, in which the damage to the patients eyes were the result of bodily deterioration equivalent to a seventy year old man. The prognosis given by the patient's ophthalmologist and other physicians was one of no hope for recovery.

Since the case was deemed hopeless and incurable, his doctors willingly stepped aside and permitted Dr. M. Warmbrand (a naturopathic physician) to take the case. It was unclear to Dr. Warmbrand whether degenerative changes had already progressed to the point where irreversible damage precluded any actual possibility for recovery. As a first step, all regular feeding and drugs were discontinued. The patient was put to bed and allowed small quantities of fresh orange and grapefruit juice several times a day. In addition cleansing enemas and hot baths were ordered twice daily, after which he was wrapped in wet sheets to induce profuse sweating. His eyes were kept covered to exclude all light, while the room was darkened for further protection. This program was maintained for about a week, after which small meals of fresh fruits and vegetables were given. The enemas, hot baths and sweats were reduced to one a day.

General improvements in his condition were noticeable in a very brief time. His blood pressure began to decline until it gradually reached a normal level. However, as far as his sight was concerned, no discernible improvements were apparent during the first two weeks. (At this point, in terrible despondency, the patient began to speak of suicide.) However, early one morning as he awakened and opened his eyes he seemed to notice distinct shadows reflected from the street, on the wall opposite his bed. Unbelievably he turned to look around at other things. No, it wasn't his imagination and he began to shout aloud "I can see! I can see!" At first his vision was dim and blurred, but improvements continued each day. Within a week he left the hospital and two weeks later the following report was issued by his Ophthalmologist. The patient "shows almost complete regression of the neuroretinitis. His vision is R20/25 and L20/330 and he accepts no correction. The tension is normal, lenses and media are clear" It is of interest that before his blindness, the patient was myopic and required eyeglasses, but as a result of this form of treatment he no longer requires the use of eyeglasses. ¹³⁷

CANCER

J.R. Davidson (former Associate Professor of Clinical Medicine, Univ. of Manitoba) while serving as a consultant physician at Winnipeg General Hospital observed that a significantly greater number of cancer patients were admitted in the spring than in the fall, with most coming from more remote rural areas. He began to wonder whether there might be a connection between the restricted diet "taken by people on Western farms in winter, with its low nutritional content and the disease" (i.e. a diet lacking in unrefined foods, including fresh fruits and vegetables). He

went on to reflect on his own boyhood on a farm as a time when foods were whole with little processing, and cancer was still rare.

Based on these insights Davidson went on to conduct 10 years of nutrition experiments on mice “in the basement of my home”. In mice its possible to observe cancer in rapid development during several generations, which of course isn’t possible with humans. Employing a poor nutritional diet and the external application of tar on a small area of skin, he succeeded in developing a strain of mice with 100 percent cancer. In his words “then taking the offspring of this strain, I fed them a high vitamin diet and eventually developed a strain which would resist cancer under the same conditions as their ancestors developed it”, thus demonstrating that “cancer resistancy” is largely nutrition based. ¹³⁸

Linus Pauling reports on a clinical study conducted under the direction of Ewin Cameron at the Vale of Leven Hospital in Scotland, in which a control group of 1,000 hospital patients with ‘untreatable’ terminal cancer were compared with 100 hospital patients also with “untreatable” terminal cancer, but given a daily Vitamin C supplement averaging 10 grams daily. On the date when the last of the 1000 controls had died, “the average time of survival after the date of ‘untreatability’ was 4.2 times as great” for the Vitamin C treated patients. The vitamin treated patients averaged 300 more days of life, with a few actually now free of cancer and “leading normal lives.”

In his extensive clinical experience with cancer Cameron has found that patients who regularly receive high dosage Vitamin C treatment will undergo a reduction in pain to the degree that narcotic painkillers such as morphine become unnecessary, and there will be a lessening of both nausea and loss of hair in patients undergoing cytotoxic chemotherapy treatment. ¹³⁹

As a fourth year medical student in Malaysia, Wong Hon Sun was forced to leave Medical School only one month short of completion due to ill health, and later at the age of 32 was diagnosed as having inoperable anaplastic (the term anaplastic suggests a rapidly fatal type of malignant tumor) epidermoid carcinoma of the throat. His physician suggested (likely because of the large size and location of the cancerous growth) that Mr. Sun had only a matter of weeks left before death would ensue. Given the inoperability of the tumor, he was given deep radiation treatments several times weekly in a desperate attempt to prevent its spread. The radiation treatments caused his face to become inflamed (later turning black), tender, and bloated and his mouth parched with a constant sense of thirst despite drinking water (in the words of the radiographer his salivary glands had been “knocked out”).

As he faced certain death, he recalled how his boyhood pet Terrier had developed systemic cancer and was put out of its misery by the veterinarian. He asked himself why it was that his domestic pet sickened when animals in the wild do not. In that the dog was primarily fed scraps from the same table where he ate, he recognized that the underlying cause of the disease must be nutritional.

Abandoning the highly processed and high fat diet of his youth, he began a self-treatment program, the principle elements of which included the elimination of all drugs (including painkillers) and an initial 14 day fast on coconut water (which has a composition close to human

intracellular fluid). This was followed by a one meal a day uncooked dietary program abounding in fresh tropical fruits, and sugar cane juice (initially supplemented with raw liver, and eggs etc., which were progressively, displaced with uncooked vegetables, nuts and seeds). The treatment also included early morning and late afternoon outdoor exercise, in which - over a several month period - painful walking was gradually displaced by long and strenuous runs, thus oxygenating his system.

The results? In addition to being completely healed from a very advanced neoplastic malignancy, the loss of salivary gland function from the radiation treatments was healed, and multiple chronic conditions from which he suffered i.e. colds, sinusitis (with a breathing blockage in the nostrils, and total loss of smell), gingivitis, hay fever, indigestion, insomnia, and of late partial deafness and a loss of virility were also completely cured. ¹⁴⁰

CONCLUSION

Much of modern bio-science and medicine is actually predicated on an assumed technological ability to absolve us from answerability to the natural bio-system laws of cause and effect. It is in essence a belief of fantasy and tragedy that we can improve upon nature's original design and purpose through deceitfully manipulating her to our own heedless benefit. An apropos quote from Chime states that we think that:

...we are responsible to nothing but our own pleasure, that we may freely violate and disregard natural law and then artificially manipulate the deleterious consequences. We may believe that we can eat poorly, sleep rarely, work constantly, exercise sparingly, and avoid any physical consequences by some wonder drug...It requires no discipline and no sacrifice.... [However] For all our advances in science, we still remain humbly, pitifully dependent upon the forces of nature: air, water, food, and sunlight. It seems in fact, the more advanced our technology becomes, the more capable we are of destroying ourselves...by more insidious inroads into our health.

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TABLE XV. which follows on the next page provides a fully rational explication of the dynamic processes and factors determining health and disease. In summarizing all of the evidences presented in this paper, we may safely conclude that our individual and collective states of "health" and "disease" depends essentially upon our understanding of and respect for the bio-social, and spiritual principles of life as established in the creation of all life forms on earth. It is indeed incontrovertible that the only sure answer to the frightening bio-physical and social degeneration our modern world faces today is the intelligent creation of a counter-public health policy which supports a studied understanding of and respectful return to the original and immutable laws of life and health. As part of this movement, all nations and peoples should be encouraged to return to the grand design and purposes as embodied in the Creation by the Creator, with the assurance that the consequences of this commitment will be a far healthier Earth and humanity.

**TABLE XV. PSYCHO-PHYSIOLOGICAL INTEGRITY
WITH THE HEALTH AND DISEASE CONTINUUM**

Life healing - i.e. vital systemic cleansing, balancing, reparative and renewal processes - (with varied infectious disease symptoms being severe and acute manifestations) are continuously at work, at all stages from the highest level of functioning and on downward to the point of death. The efficacy of these healing processes depend solely upon the appropriate and moderate provision of the following primal and lawful requisites of human life.

- i. **AIR** (pure, with electrically balanced ion levels)
- ii. **WATER** (in potable form, employed for bodily - internal and external - cleansing, and environmental sanitation)
- iii. **SUNLIGHT** (early morning and late afternoon, including regular exposure to living quarters)
- iv. **EXERCISE** (physical, mental, and spiritual faculties)
- v. **REST** (physiological and psycho-emotional)
- vi. **SOUND NUTRITION** (i.e. a balanced variety of unrefined and unadulterated plant foods derived from mineral rich-living soil)
- vii. **POSITIVE THINKING** (including positive/constructive motives, emotions and relationships)

PSYCHO-BIO-PHYSICAL INTEGRITY depends upon the foregoing requisites, coupled with: sound heredity; non-abuse of the central nervous system; and general freedom from adverse influences, e.g. chemicals, drugs, radiation, foreign antigens, trauma and physical injuries. Whether through inheritance [i.e. pre-dispositional weaknesses] or in one's own life, *DENIAL OF THESE BASIC LIFE REQUISITES, OR THE INTRUSION OF THESE ADVERSE INFLUENCES, CONSTITUTES THE PRIMARY AND SUSTAINING CAUSES UNDERLYING THE MULTIPLE SYMPTOMS OF PSYCHO-BIO-PHYSICAL DEGENERATION (PHYSICAL AND MENTAL DISEASE)*. The distinction between “prevention” and “cure” is an artificially contrived notion and does not exist in nature, viz. the self-same primal, i.e. original causes by which systemic (psycho-physiological) health is maintained, also serve as the only sound measures by which lost health can be restored.

COMPLIANCE with primary psycho-physiological laws ensures an increase and strengthening of inherent vital force and immunity leading to *High Level Health*:

DEATH ⇒ DEGENERATION ⇒ IMPAIRMENT ⇒ LOW ⇒ MEDIUM ⇒ HIGH HEALTH

NON-COMPLIANCE with primary psycho-physiological laws ensures a weakening of inherent vital force and immunity, leading to *Degeneration and Death*:

DEATH ⇐ DEGENERATION ⇐ IMPAIRMENT ⇐ LOW ⇐ MEDIUM ⇐ HIGH HEALTH

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Note: Some may understandably raise the concern that a number of the references cited are not directly related to Development and the Developing World, and secondly are not uniformly recent.

- I. In response to this point, it remains obvious that the conventions of Western Selective Medicine are inherently predicated on a Western perspective of health and disease. Consequently it seems only consistent and apropos that Western based applied research and experience can and should be brought to bear in any serious effort to constructively examine these areas.
 - II. On the issue of the how recent the data is, it is one of the foibles of Westernized thinking (particularly in the medical field) that unless an observation or a practice is very recent, it should be held suspect as being obsolete and due for relegation to the trash can. This view is correct only insofar as erroneous concepts undergird a system, and its faulty theories and ever changing practices have no better basis than unanchored and footloose empiricism. More precise sciences such as astronomy, and physics continue to heavily utilize and build upon older research sources and practices, some even going back over many centuries. The reason this is so, is because insofar as the principle à practice à observation continuum is correct and valid, the data remains unchanging and unaffected by the vagaries of both time and circumstances.
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