The Secret to a Healthy Nation

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Abstract

Health is a complete state of physical, mental and social well-being and is a fundamental human right. It would have been hoped that in this age of globalising free-markets where unused resources would more readily be able to flow to unmet needs, that our states of well-being would have been optimised. Sadly, this is not the case, and the data suggests that the health of our lives and that of the planet are being compromised.

The leading causes of death at home and in the region are the non-communicable diseases of heart disease, cancer, stroke, diabetes and injuries, and the main drivers of these diseases are hypertension, overweight/obesity, alcohol abuse, smoking, unhealthy eating and physical inactivity. Since the 1970’s, the prevalence of overweight and obese individuals and their complications have increased to epidemic proportions mainly as a result of the behavioural risk factors of unhealthy eating, physical inactivity, tobacco smoking and heavy use of alcohol.

The major driver of these behavioural risk factors is the globalisation of the fast food industry aided and abetted by the mass media, which has not only increased the prevalence of childhood and adult obesity and by extension the non-communicable diseases, but has also been responsible for ecological pathologies such as climate changes and global warming. Also global trade agreements have made it more and more difficult for leaders of nation states to act in the best interest of their citizens as “free” market dictates have stymied efforts to create policies that are more conducive to healthier lives and a healthier planet.

A new perspective of globalisation and its negative effects on people’s lives has been proposed by psychologist Dr Bruce Alexander. He makes the provocative claim that globalising free-markets necessarily fosters psychosocial dislocation of individuals from their families, communities and health-nurturing cultures, and this in turn results in destructive and compulsive behaviours being substituted for these disconnections. These addictive tendencies are not only in the use of illicit drugs, but also in the abuse of legal substances such as tobacco, alcohol, fast food, and extends to other activities such as shopping, gambling, sex, the acquisition of more and more wealth and even more and more power, and in their wake,
the unintended consequence is a host of physical, mental and social maladies. Given that psychosocial dislocation is the root cause of our unhealthy physical, mental and social behaviours, it behooves us to find ways and means of reversing these trends and regain psychosocial reintegration and reconnection and to achieve more harmony and balance with ourselves, our communities and our planet.

We will discover that the fundamental unit of production, growth and development in our nation are not individuals, but relationships, and links are made between the quality of our social relationships, mental capital, stress and the physical, mental and social negative outcomes. Since we cannot treat ourselves out of these chronic diseases, prevention of these illnesses has to be the mainstay of treatment through the development of local, regional and international policies.

A bottom-up approach, that focuses on patients and families supported by the physical, mental and social health care teams, community partners and the creation of a positive policy environment, is the only approach that is worthy of consideration as it is the only approach that is wholistic, people-and planet-centred and that is designed to succeed.

Our true physical, mental and social capital will be revealed, along with the secret to healthy living and the creation of a healthy nation. It is fundamentally about responsible stewardship of our life-supporting and life-nurturing networks within our bodies, our families and communities, and ultimately about responsible stewardship of our biosphere and lithosphere which have been gifted to us and have supported and nurtured us for billions of years.

We have enough information to guide us now, as we take a more wholistic approach to health promotion and preventative health maintenance, as we all work together to create a better and brighter and healthier nation, once and for all, and for one and all.

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1 What is health?

According to the World Health Organisation, health can be defined in the following ways [1):

“Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”

and

"Health is a universal value, a basic human right and a resource for everyday life."

It must be noted, that a wholistic approach to health is being looked at and that health is not a privilege that should be accorded to only those who could afford it. It goes without saying that fundamentally, the acquisition and maintenance of our individual and collective health are social justice and civil right issues.

2 Is our physical well-being optimised, or is it being compromised?

2.1 What are the leading causes of death in the Caribbean?

If we look at data from the region, we will see that the leading causes of death, in decreasing order of incidence are heart disease, followed by cancers, diabetes, stroke, injuries, hypertensive diseases and last but not least HIV/AIDS. It is interesting to note that the disease that has gotten the most publicity, advocacy and funding is not the leading cause of death in the region (Figure 2.1).

2.2 What are the leading risk factors for death?

If we look at the leading risk factors for death, we will find that high blood pressure, overweight/obesity and alcohol use lead the way, followed by smoking, high cholesterol, low consumption of fruits and vegetables and physical inactivity (Figure 2.2).
Figure 2.1: Crude Mortality Rates (per 100,000 population) for Selected Diseases: (2000-2004) Caricom Member States. Adapted from [2].

Figure 2.2: Mortality Attributable Risk to Leading Risk Factors, by Disease Type in Latin America & Caribbean 2001. Adapted from [2].
2.3 Which of the risk factors are contributing the most to the burden of diseases in our communities?

It may come as a surprise to many, that alcohol use has contributed the most to suffering in our communities, not only leading to cardiovascular disease and cancer, but also to violence and injuries in addition to psychiatric issues. This is followed by high blood pressure, overweight/obesity, smoking, high cholesterol, low consumption of fruits and vegetables and physical inactivity (Figure 2.3). We measure the disease burden by disability-adjusted-life-years, which are the aggregated number of years of disability due to infirmity or disease, and which represents the lost potential of our people to contribute to the growth and development of our families, communities and nation. Furthermore, when people are not able to work or care for themselves, they become a burden for the same families, communities and nation they once served.

2.4 What was the prevalence of overweight/obesity in the past?

Let us now take a closer look at overweight and obesity, which were the second most common risk factor for death and the third most common risk factor for disability in the region. A person has 1) a normal weight if his/her body mass index (BMI), which is defined as the weight in kg divided by the height in meters squared is less than 25, 2) overweight if the BMI is between 25 and 30, and 3) obese if the BMI is greater than 30. If we look at the trend since the 1970s, we would notice that among the women, the prevalence of those whose BMI was above 25 was 20% in the 1970s, 40% in the 1980s and 60% in the 1990s (Figure 2.4). In 2000, this jumped to 70% (Figure 2.5), and in 2008, the percentage of our women who were overweight/obese, i.e BMI greater than 25, was about 80% (Figure 2.6). The percentage of men are not far behind. Compare this to the global average of about 35%.

2.5 What percentage of our youth are overweight/obese?

Although the trend in the adult population is troubling, the prevalence of overweight/obesity in our youths is cause for more concern. About 20% of our adolescents age 13-15 are overweight, and our children from ages 0 to 5 who are obese have been shown to increase from about 5% in 1987 to about 10% in 2006, a doubling of the rate (Figure 2.7). Some in the first world countries have remarked that we are going to be the first generation of parents who would be outliving our children if this trend continues.

2.6 What is the prevalence of high blood pressure in our adult population?

Again, we have one of the highest prevalence of high blood pressure in adults in the region where about 45% of those older than 25 years have a systolic blood pressure greater than 140, a diastolic blood pressure
Figure 2.3: Burden of Disease Attributable to Leading Risk Factors, by Disease Type in Latin America & Caribbean 2001. Adapted from [2].

Figure 2.4: Trends in Adult Overweight/Obesity in the Caribbean. Source: Caribbean Food and Nutrition Institute (CFNI). Adapted from [3].

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Figure 2.7: Obesity Prevalence (%) Birth to 5 years (Nutrition Unit, MOH)
greater than 90, or are on medication for blood pressure control (Figure 2.8).

2.7 What is the prevalence of diabetes in our adult population?

We believe that similar to Dominica, as shown in Figure 2.9, the prevalence of diabetes in our population is about 20%, which is about twice the global average.

2.8 Why is obesity compromising our health?

As shown in Figure 2.10, fat is not just a storage organ for excess energy when our caloric intake is greater than our caloric expenditure. When we are overweight or obese, our fat cells become stressed and release several chemical mediators that promote the development of several metabolic states like high blood pressure, type 2 diabetes, high LDL (which is the bad cholesterol), low HDL (which is the good cholesterol) and high triglycerides (a type of fat molecule). These in turn result in inflammation in the lining of our arteries (which are the major plumbing of our body) which causes the bad cholesterol to deposit in the walls of the arteries and harden in a process called atherosclerosis.

2.9 Why is atherosclerosis so dangerous and how does it cause death and disability?

Atherosclerosis is a progressive process that occurs over a period of decades.

It starts in childhood and goes through three main phases starting from the fatty streak in the lining of
Figure 2.9: Age-Standardised regional diabetes rates (age 25+ years) - 2008. Adapted from [4].

Figure 2.10: Fat cells release several chemical mediators that promote the development of abnormal metabolic states and atherosclerosis. Adapted from [5].
the artery, to a fibrous plaque, then to an occlusive atherosclerotic plaque which may be stable and cause
symptoms only when the blood supply cannot keep up with the demand of the organ it supplies. In many
cases, these plaques become unstable and rupture, and when they do so, a blood clot (thrombus) will form
to seal the rupture in the plaque with the unintended consequence of the circulation downstream from the
clot being blocked off and causing death of the tissue that is supplied by the vulnerable artery in question.

In the early stages of the fatty streak and fibrous plaque, you do not have any symptoms but when the
occlusion of the artery is generally greater than 70%, you get symptoms that come on on exertion and is
relieved by rest. If the artery supplies the heart, the patient experiences chest pain which is called angina.
If the occluded artery is in the leg, the patient experience foot or leg pain and this is called intermittent
claudication.

If the atherosclerotic plaque ruptures in one of the arteries in the heart, then the outcome depends on the
location, severity and the length of time of the blockage of the artery. If it is mild and transient and the clot
resolves spontaneously or by the use of clot-busting drugs or artery catheterization procedures before there
is any damage, then the patient is said to suffer unstable angina. If this blockage occurs for a longer period
of time and the heart muscles do not get enough blood supply, the heart muscle can die and the patient is
said to suffer a myocardial infarction or heart attack. However, for a significant number of patients, about
25%, the patient dies suddenly as the heart stops beating, and the patient is said to have suffered a sudden
cardiac death.

If the atherosclerotic plaque ruptures in one of the arteries in the brain and an occlusive clot forms,
the patient is said to suffer a transient ischemic attach (TIA) or minor stroke, if the symptoms, such as
an inability to speak, twisting of the face or weakness of the hands of the legs, is transient. However,
if the blockage lasts for a longer time and is not relieved by clot-busting drugs in time, the patient may
suffer permanent damage and this is called a brain attack or stroke. The symptoms the patients develop is
dependent on the location and extent of blockage.

And finally, if the atherosclerotic plaque rupture occurs in an artery of the leg and a clot forms that
blocks the circulation to the tissues downstream, the patient is said to suffer critical limb ischemia, and
when parts of the limb dies and develop gangrene, then the surgeon would have no choice but to amputate
the gangrenous part of the leg to save the life of the patient. If this is not done in time, the gangrenous part
of the limb will eventually become infected and the patient will developing sepsis (a state of overwhelming
infection) and will succumb and die from the failure of the other organs including the kidneys and liver.

The three phases of atherosclerosis and how it progresses is summarised in Figure 2.11 and Figure 2.12
respectively.
Figure 2.11: Three phases of atherosclerosis.

- **Fatty Streak**: The first signs of atherosclerosis can be found at ages 10-14. The fatty streak (foam cells) appears as a yellow streak lining the major arteries. Containing smooth muscle cells (filled with cholesterol) and macrophages (a cell that removes excess cholesterol from the bloodstream), the fatty streak does not cause any symptoms, but can develop into fibrous plaque over time.

- **Fibrous Plaque**: This kind of plaque forms in the inner layer of the artery. In addition to smooth muscle cells and macrophages, it also contains lymphocytes. As the fibrous plaque grows, it invades the space allotted for blood flow.

- **Complicated Lesion**: This is a combination of fibrous plaque and a blood clot. During the final phase of atherosclerosis, the fibrous plaque breaks open, thereby exposing the cholesterol and connective tissue underneath. This rupture causes a strong clotting reaction from the blood.

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Figure 2.12: Atherosclerosis: A progressive process.

- Normal
- Fatty Streak
- Fibrous Plaque
- Occlusive Atherosclerotic Plaque
- Plaque Rupture/Fissure & Thrombosis

- Clinically Silent
- Effort Angina
- Claudication

- MI
- Coronary Death
- Stroke
- Critical Leg Ischemia

Increasing Age

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www.lipidhealth.org
Obesity is considered to be a central feature that increases the risk for a vast array of diseases, with significant morbidity and mortality. In general, the mechanistic basis of the link between obesity and the diseases listed on the right is poorly understood compared with that of those listed on the left.

Figure 2.13: Clustering of metabolic diseases. Adapted from [6]

2.10 Is obesity also responsible for a host of other diseases?

In addition to premature death from heart attacks and strokes, and disability from hypertension, diabetes and high LDL and atherosclerosis, obesity is also associated with cancer development, asthma, sleep apnea, neurodegenerative conditions like Parkinson’s disease and Alzheimer’s disease, arthritis of the joints of the back and knees, and gallbladder diseases too. This is summarised in 2.13.

3 What is the root cause of these diseases?

3.1 What causes cardiovascular diseases?

If we look at the non-communicable diseases like heart attack, stroke and gangrene, we realise that they are the complications of a process that took many decades to develop. If we want to find the root cause of these diseases, we have to identify the upstream determinants of these processes. As shown in Figure 3.1, these diseases are the end result of the lifestyle choices we make like unhealthy diet, physical inactivity, tobacco use and harmful use of alcohol which can be classified as behavioural risk factors. These in turn result in the development of metabolic risk factors/“diseases” such as obesity which predisposes to hypertension, high LDL, low HDL, high triglycerides, and diabetes, which ultimately results in atherosclerosis (the hardening and occlusion of our arteries) as the final common pathway to end organ damage.
3.2 What about cancer?

3.2.1 What are the leading cancer deaths in the Federation?

We do not have a cancer registry in the Federation. Several years ago, one of our colleagues looked at the data for cancer from hospital admissions and the death certificates and the leading cancer deaths were from prostate, followed by breast, pancreas, lung and colon (Figure 3.2). Please note that prostate cancer is leading the pack with 60 deaths over 4 years, which gives us about 15 deaths from prostate cancer a year.

3.2.2 What causes cancer?

So what is fuelling our higher incidence and cancer death rates? We know, like atherosclerosis, that cancer development does not occur overnight, but develops over a period of decades. This is shown in Figure 3.3. It has been shown that 5-10% of all cancers are as a result of abnormal genes being inherited, whereas 90-95% of all cancers are as a result of our lifestyle choices and environmental exposures (Figure 3.4). This convinces me and I hope you that if you have a family history of cancer, your fate is not set, and that cancer could have been prevented in the vast majority of cases [7].
Figure 3.2: The Five Leading Causes of Cancer Deaths in St. Kitts and Nevis 2005-2008

A The percentage contribution of genetic and environmental factors to cancer. The contribution of genetic factors and environmental factors towards cancer risk is 5–10% and 90–95% respectively. B Family risk ratios for selected cancers. The numbers represent familial risk ratios, defined as the risk to a given type of relative of an affected individual divided by the population prevalence. The data shown here is taken from a study conducted in Utah to determine the frequency of cancer in the first-degree relatives (parents + siblings + offspring). The familial risk ratios were assessed as the ratio of the observed number of cancer cases among the first degree relatives divided by the expected number derived from the control relatives, based on the years of birth (cohort) of the case relatives. In essence, this provides an age-adjusted risk ratio to first-degree relatives of cases compared with the general population. C Percentage contribution of each environmental factor. The percentages represented here indicate the attributable-fraction of cancer deaths due to the specified environmental risk factor.

Figure 3.4: The role of genes and environment in the development of cancer. Adapted from [7].

4 Is our mental and social well-being optimised, or is it also being compromised?

Although we have focused on the non-communicable diseases, we can see from the mortality and disability data above that injury, presumed from violent crimes, are responsible for a significant number of deaths and disability (Figures 2.1, 2.2, 2.3). Given the high prevalence of violent and non-violent crime in our region, one must ask if our mental and social well-being, or lack thereof, is in some way responsible for these negative outcomes.

An excellent source to begin our search for answers can be found in the report Mental capital and wellbeing: making the most of ourselves in the 21st century [8]. There is much to be gained by going through
the system map shown in Figure 4.1 which provides a synthetic view of the mental capital trajectory and factors that may act upon it.

If we focus in at the people, mental capital and cultural levels (Figure 4.2), we at once realise that the basic unit of society are not individuals, but relationships, involving maternal care, maternal bonding, and relationships between the child and his/her parents, teachers, friends, mentors and role models. It is the quality of these relationships, along with the early home and school experiences, along with early stress exposure and trauma, that determine our disposition to learn, and either facilitates or inhibits a positive attitude towards lifelong learning. Our social valuation of parenting, teaching and education along with our social attitudes towards drugs and alcohol are important cultural determinants that have major influences on the actualisation of our children’s potential.

During the adolescent phase, much of our mental skills and capacities are nurtured and cultivated, as we grow and develop our executive functions responsible for organising, managing and controlling our behaviour. Our self-esteem, emotional and social understanding and awareness also grows and develops, and we learn about ourselves and the world around us through the skills of reading and writing in addition to the interactions with the other members in our communities.

If as adolescents we are successful in acquiring these skills and navigating this stage of transition from childhood to adulthood, we will develop positive attributes of peer resistance, and be “self-controlled,” and be more socially engaged, competent, confident, have good character and be caring individuals. On the other hand, if we do not have nurturing environments, be at home, school and in the community to develop these skills, we would more likely than not succumb to ‘impulsivity’ and engage in unhealthy behaviours such as smoking and being sexually irresponsible, with the unintended consequence of teenage pregnancy and the acquisition of sexually transmitted infections. Also we may even become socially maladjusted and engage in anti-social behaviour, like gang activities, crime and even drug-abuse.

We have also discovered that stress plays a significant role, not only in negatively affecting our mental health, but also our social and physical wellbeing. Our work environment in our society is a source of much stress, and many factors like managerial style, the degree of participation and control, job insecurity, skill under-utilisation and excess workload, social relationships, hours of work, and commuting schedule play an important role in the degree of stress we experience on a daily basis (Figure 4.3). The negative effects of stress can be offset if we have cognitive resilience and have coping skills to deal with the daily challenges of work. Also social support or lack thereof from our coworkers, friends and communities, and from our spouse, children and family play an equally important role in helping us to develop our cognitive resilience and coping skills in the first place. We can try our best to reduce stress in our work environment, but given we live in a demanding world, our developing coping skills and cognitive resilience to stress during our
Figure 4.1: A synthetic view of the mental capital trajectory and factors that may act upon it. Adapted from [8].
formative years is our best defence to this stressful work environment.

We now know that stress, if chronic, have negative influences on our physical health too (Figure 4.4). This is due to chronic activation of our hypothalamic-pituitary-adrenal axis and our sympathetic nervous system along with glucocorticoid overexposure, which may also contribute to obesity (by causing unhealthy eating, smoking and drinking habits, along with reduced physical activity). In addition stress causes chronic inflammation, a negative mental outlook and a poor sense of control. We see here how our mental, social and physical wellbeing are so interrelated and intertwined, and that ill-health in one sphere produces ill-health in the others.

And finally, in our later years (Figure 4.5), we develop age-related cognitive and physical challenges that can have a negative influence on our cognitive reserves. How much of this is preserved is dependent on our daily physical and mental activity, social stimulation and our diet and medication interventions. Unfortunately, elderly neglect due to lack of support from family and community is a dark reality in our nation. Also, many of our elders, where the repository of wisdom and experience lie, are terminated from vital and essential services because of myopic policies, hence resulting in an underinvestment in our elders and a blatant waste of mental capital. Although we know genetic inheritance plays some role in how long we live, we now recognise that our early mental, social and physical environmental exposures and lifestyle choices determine whether or not we add years to our lives or subtract life from our years.
Figure 4.3: Zooming in on the causes and effects of stress on our mental development.
Figure 4.4: Zooming in on how stress affects our physical health.

Figure 4.5: Zooming in on how our mental capital may be wasted in the older years.
5 What really is compromising our physical, mental and social well-being?

5.1 Where do the geopolitical and socioeconomic factors figure in the big scheme of things?

At this point, I hope that you appreciate that it is our unhealthy lifestyle choices such as low consumption of fruit and vegetables, physical inactivity, smoking and alcohol use that is resulting in premature death and disability. But one must ask, what is responsible for these unhealthy lifestyle choices in the first place? If we know better, how come we cannot do better? This brings us to the root cause of all of the causes and it is here where we will find the geopolitical and socioeconomic determinants of health. This is illustrated by an iceberg model of non-communicable disease (NCDs) where what we see is only the end result of the causal chain of influences (the tip of the iceberg), where at the very base we find poverty, illiteracy, urbanisation and globalisation, which interact with each other and serve to create, maintain and sustain unhealthy lifestyle choices, metabolic complications and eventually the non-communicable diseases (Figure 5.1).

5.2 How does globalisation negatively affect our health?

We all hear talk that globalisation is good for the economies of the world, in that by decreasing barriers to trade of goods and services, jobs will be created and unused resources would be able to flow more efficiently to unmet needs. However, what is being recognised is that globalisation in general, and that of the fast food industry in particular, has resulted in the creation of obesogenic and carcinogenic environments with the unintended consequences of rising childhood and adult obesity, cancer and cardiovascular diseases. Also the fast food industry has been aided and abetted by the mass media advertising and marketing machinery
Furthermore the fast food industry is sustained by first-world government subsidies that help produce cheap fats and sugars from corn and soy, and which is mainly responsible for fresh produce being more expensive compared with that of junk food. Furthermore our third-world farmers are put out of business as they are unable to compete with the transnational corporations who benefit from duplicitous first-world government subsidies and global trade policies restricting similar policies in third-world countries and this has given first-world agribusiness an unfair competitive advantage.

What is also being increasingly recognised is that globalisation, mechanisation, urbanisation and the directive of economic growth, in addition to negatively affecting the health of the people, have also adversely affected the health of the planet. This ecological pathology is manifested in the forms of industrial waste, pollution, carbon resistance, global warming and climate change. Our over-consumption and wasteful lifestyles have now polluted the gifts of Mother Earth, her air, water and soil, which has sustained all life for billions of years. Figure 5.3 illustrates succinctly how industrialisation, population growth and economic growth have resulted in 1) the metabolic inflammation "metaflammation" of our bodies, and 2) ecological inflammation "ecoflammation" of our planet, and how this has resulted in chronic diseases and climate changes, respectively.

We can even take a big history view to understand why globalisation, (and industrialisation along with its unintended consequences), is the root cause of our diseases. We have created and sustained man-made environments, by-products, lifestyles and behaviours that are detrimental to our health (Figure 5.4). Many of these behaviours, lifestyles and environmental exposures act directly to produce inflammation within our bodies unknown to us, and this in turn damages our health and well-being (Figure 5.5).
The bullets associated with each inducer in the time frame indicated suggest the approximate time of introduction to the human environment. “Anthropogens” are defined here as man-made environments and the by-products, behaviours, and/or lifestyles encouraged by those environments, some of which have biological effects which may be detrimental to human health. Abbreviations: MUFA, monounsaturated fatty acid; EI, energy intake; EE, energy expenditure; N6, omega-6 fatty acid; N3, omega-3 fatty acid; BP, before present; EDCs, endocrine-disrupting chemicals; SAFA, saturated fatty acid.

Figure 5.4: The pro- or anti-inflammatory effects of various inducers and their approximate (not to scale) introduction into the human environment. Adapted from [12].
5.3 Why globalisation may also be at the root of our negative environmental "exposures" and lifestyle "choices"?

Addictions are compulsive destructive behaviours that are difficult to change. Although we associate addiction with illicit drugs and gambling, addiction has many faces. For example, many people are addicted to sex, work, eating, money and power, and despite getting more and more they are still not satisfied and want more, and in their wake they do more damage to themselves, their families and their communities. Dr. Bruce Alexander, a Canadian psychologist, wrote a provocative book entitled *The Globalisation of Addiction: A Study in Poverty of the Spirit* (Figure 5.6) in which he purports that the globalising free-market is responsible for many of the counterproductive and maladaptive addictive behaviours we see around us as a result of psychosocial dislocation. His theory of psychosocial dislocation is summarized in Figure 5.7.

In one of his earlier papers entitled, *The Roots of Addiction in Free Market Society* [14], he wrote:

"Insufficient psychosocial integration can be called "dislocation." Severe, prolonged dislocation is hard to endure. When forced upon people, dislocation—i.e., ostracism, excommunication, exile, or solitary confinement— is so onerous that it has been used as a dire punishment from ancient times until the present. Severe, prolonged dislocation regularly leads to suicide.

Dislocation can have diverse causes. It can arise from a natural disaster that destroys a

- Psychosocial integration is a necessity
- Globalizing free-market society produces mass dislocation
- People use addiction as a way of adapting to sustained dislocation

Figure 5.7: The Three Principles of Bruce Alexander’s Dislocation Theory of Globalising Addiction. Adapted from [13].
person's home or from a debilitating accident that bars the person from full participation in society. It can be inflicted by violence, e.g., by driving masses of people from their territory, or by abusing an individual child who thereafter shrinks from all human contact. It can be inflicted without violence, e.g., as when a parent instills an unrealistic sense of superiority that makes a child insufferable to others. It can be voluntarily chosen, e.g., in the single-minded pursuit of wealth in a “gold rush,” or in jumping at a “window of opportunity.” Finally, dislocation can be universal if a society systematically curtails psychosocial integration in all its members. Universal dislocation is endemic in free market society.

Although any person in any society can become dislocated, modern western societies dislocate all their members to a greater or lesser degree because all members must participate in “free markets” that control labour, land, money and consumer goods. Free markets require that participants take the role of individual economic actors, unencumbered by family and friendship obligations, clan loyalties, community responsibilities, charitable feelings, the values or their religion, ethnic group, or nation. The essential maxim of free market society, as proclaimed by Adam Smith, is that markets that are regulated primarily by the laws of supply and demand maximise everybody's well being in the long run by multiplying the “wealth of nations.”

Severe dislocation provokes a desperate response, whether it is universal or idiosyncratic. Dislocated people struggle to find or restore psychosocial integration—to somehow “get a life.” People who persistently fail to achieve genuine psychosocial integration eventually construct lifestyles that substitute for it. Substitute lifestyles entail social relationships that are not sufficiently close, stable, or culturally acceptable to afford more than minimal psychosocial integration. At best, these substitute lifestyles can be creative, as in the case of an eccentric artist or high-tech wizard, but more usually they are banal and dangerous, as in the case of a youth gang member or a street addict. Substitute lifestyles sometimes—but not always—centre on excessive use of drugs.

Even the most harmful substitute lifestyles serve an adaptive function. For example, devoted loyalty to a violent youth gang, offensive as it may be to society and to the gang member's own values, is far more endurable than no identity at all. The barren pleasures of a street “junkie”—membership in a deviant subculture, transient relief from pain, the nervous thrill of petty crime—are more sustaining than the unrelenting aimlessness of dislocation. People who can find no better way of achieving psycho-social integration than through substitute life-styles cling to them with a tenacity that is properly called addiction.”
5.4 Has globalisation negated the ability of the leaders of our nation states from acting in the best interest of their people?

In an eye-opening paper entitled *Towards a New Democracy and a New Independence A Program for the Second Independence Revolution* [15], Tennyson S.D. Joseph makes the bold claim that globalisation has disempowered our policymakers in the region from being able to act in the best interest of their people, and this can also be applied to the health policy spheres too. In the section entitled, *The Negation of Democracy: The Return of Power Without Responsibility*, he wrote:

“...Whilst we often focus on the economic consequences of globalisation, we tend to forget that globalisation has resulted in the erosion of our democracy. Under classic colonialism the state enjoyed power without responsibility. In other words, the British colonial apparatus and its local representatives were able to wield power over our citizens, yet these colonial rulers were neither elected by, nor were they accountable to the local population. The Colonial state was therefore neither representative of local wishes, nor was it responsible or accountable to any local aspirations.

Many of us tend to forget that our independence movements were also democratic movements. By the winning of one man one vote, we gave ourselves the capacity to elect governments of our own making, who would make decisions according to the wishes of the majority. These governments were to be directly accountable to us and as a consequence, could be removed once we felt that they had not conformed to our expectations. Our independence movements therefore moved the centre of decision making from the Colonial Office in London and placed them in the hands of the local population.

All of this has been undermined by globalisation, which has re-presented the old colonial problematic of power without responsibility in a new guise. Firstly, our new independent governments are now constrained in their policy choices and critical economic decisions are now being made more and more in the IMF, World Bank, and the G20 than in our domestic cabinet rooms. Whilst the power of our domestically elected governments have decreased, they remain no less accountable for actions over which they have very little or no control. So whilst in the old days the colonial rulers enjoyed POWER WITHOUT RESPONSIBILITY, today our local governments have RESPONSIBILITY WITHOUT POWER, and international agencies enjoy POWER WITHOUT RESPONSIBILITY. All of this negates the very essence of democracy, in which the right to self-determination and government by the consent of the governed are essential parts.”
5.5 The many faces of psychosocial dislocation - from without to within

By taking a big history view of our local situation, we can recognize the many faces of systematic and structural psychosocial dislocations that have confronted our people over and over again. First, we must acknowledge that slavery had dislocated its people from the families, communities and their wholesome indigenous cultures from whence they came. This then was followed by a racial apartheid colonial system where the locals were governed by their overseas colonial masters and were treated as second class citizens with major psychological and social consequences. Many families had to immigrate abroad for work and education, and have been dislocated from their families and communities. And now we are in a period of neocolonial/neoliberal policies that have imposed austerity measures on many that have resulted in increased unemployment and cutting of the social, education and health services that again have had negative psychological and social consequences for its people. As a result we have a major brain drain and brain strain problem (in terms of having undereducated and incarcerated individuals) whose true potential of meaningful relationships and meaningful work in their families and communities are not being actualized.

And to add insult to injury, we have our own home-grown program of systemic and structural psychosocial dislocation, in the guise of political tribalism, which has done much to separate individuals from the values of their upbringing, and have even divided families, communities and even our Federation. Unless we reverse course and start the process of political detribalization in the name of national unity and psychosocial reintegration, the same addictive tendencies mentioned above including those for money and power will continue to rear its ugly head over and over again, and we would continue to add insults to our injurious past.

6 What is the best approach to optimising our physical, mental and social health?

6.1 When is an ounce of prevention not better than a pound of cure?

Since many of our physical, mental and social diseases arise as a results of negative outcomes to pathological processes that have take many years or decades to incur their damage and take root, be it at the physiological, mental and social levels, the best approach would involve us intervening at four levels: 1) at the time of the complications in order to rehabilitate and prevent other complications, 2) earlier on by screening for metabolic, mental and social risk factors before symptoms develops, 3) still earlier than that to identify individuals, families and communities at risk as manifested by at-risk behaviour, and finally, 4) at the level
of our laws and our policies so that the healthier choices are subsidised and the unhealthy ones have their subsidies removed. As these four interventions are designed to prevent the production and distribution of psychopathological policies, environments and behaviours that could result in premature death and disability, they are rightfully called preventative strategies (Figure 6.1).

Unfortunately, as our system stands now, we have a disease management model of health care delivery rather than a preventative health care maintenance and promotion system. It is my fervent hope that this would change as a matter of priority and policy as given the obesity trends we see in our midst, managing the complications of our physical, mental and social diseases are taking us where we cannot afford to go. As they say, an ounce of prevention is worth more than a pound of cure (except if your salary or livelihood depends on the financial health and well-being of the medical-industrial complex). Unfortunately, as our system now stands, the physical, mental and social wellbeing of our households and its members, and the ecological health of our planet and its other sentient inhabitants, are less valued than the financial health of the man-made legal entities known as markets, firms, and transnational corporations!

6.2 A ground/bottom-up approach to managing our chronic diseases.

Given the vested interest by those at the top in globalisation and in maintaining the status quo, a top-down approach to health-care reform that focuses on the four levels of prevention mentioned above is laden with major challenges and obstacles for reasons I intimated above. Given the secret ‘corporate/investor protection’ agreements being signed behind closed doors in the name of globalised ‘free-trade’, we are in a new age of exploration where our minds, bodies and communities are being domesticated and exploited to maximise financial gains, rather than being liberated to maximise our mental, social and physical health and well-being. The best model I have seen thus far that provides a ground/bottom-up model and roadmap
to better health care delivery is shown in Figure 6.2.

It starts at the bottom and is patient-focused, family-centered, community-partnered and health-care-team-supported. This tripartite arrangement functions best when all stakeholders are all informed, motivated and prepared to deal with the challenges they face.

The health care organisation should be such that it effectively promotes continuity and coordination of care, encourages quality through leadership and incentives, organise and ensure that the health care teams are adequately equipped, and above all take advantage of information systems that support self-management and preventative approaches to health.

The community can optimise its functions best by helping to raise awareness and helping to reduce the stigma of physical, mental and social diseases. Moreover, they can help encourage better outcomes through leadership and support, by mobilising and coordinating resources, and providing complementary services like volunteerism and fund-raising activities.

And finally, our governments at the top will have no other choice but to follow the lead of the health care team and community partners in their service to patients and families, by facilitating linkages to all stakeholders by strengthening partnerships, helping create supportive legislative frameworks, integrating polices such as in education, agriculture, health, social affairs and infrastructure development, and above all providing leadership and advocacy, not only locally but also regionally and internationally. It must be stressed that as health care providers, our ultimate duty is to our patients and their families and not to the policy makers. It is in this regard that it cannot be stressed enough that the policy makers and administrators’ duty is to support the technocrats and the front-line workers in their duties by promoting consistent financing and developing and allocating adequate, competent and caring human resources.
7 So what is the secret to a healthy nation?

Having delved into the magnitude of the problem we face, and showing how our physical, mental, and social health and wellbeing is actually not being optimised, but are being compromised, what do we do now? Since we already have a model that is grounded in a bottom-up approach to healthcare prevention, promotion and treatment, how can we motivate all stakeholders involved to work together to create a healthy nation? What is the missing ingredient that may be hidden in plain sight? In the holistic spirit of the Socratic method, I will now ask some leading questions that will help us navigate our way to the secret that is being sought.

- Is the secret to a healthy nation responsible stewardship?
- Does it involve us tending the garden of our physical, mental and social selves?
- What do we call that EXPERIENCE OF CONNECTION with the cells, tissues and organs of our bodies, that motivates us to keep our physiological reserves in the best shape possible? Isn’t this our physical capital?
- What do we call that EXPERIENCE OF CONNECTION with our family, friends, school-mates, co-workers and neighbours in our community, that motivates us to invest in them and they in us, as we actualize their potential and they ours? Isn’t this our social capital?
What do we call that EXPERIENCE OF CONNECTION with our thoughts and emotions and our worldview, that motivates us to cope with difficult situations when they arise without getting anxious, depressed, angry or frustrated, and be at peace with ourselves, others and the world? Isn’t this our mental capital?

What did William Blake mean in his poem?

"To see a World in a Grain of Sand
And a Heaven in a Wild Flower,
Hold Infinity in the palm of your hand
And Eternity in an hour."

Also, could it be that when Jesus was talking about inheriting an eternal life, he was in fact talking about inheriting a healthy, fruitful and purpose-driven life?

Luke 10:25-28 King James Version (KJV)

And, behold, a certain lawyer stood up, and tempted him, saying, “Master, what shall I do to inherit eternal life?”

He said unto him, “What is written in the law? how readest thou?”

And he answering said, “Thou shalt love the Lord thy God with all thy heart, and with all thy soul, and with all thy strength, and with all thy mind; and thy neighbour as thyself.”

And he said unto him, “Thou hast answered right: this do, and thou shalt live.”
• Is LOVE OF GOD referring to STEWARDSHIP of all creatures and all of creation inclusive of the life supporting systems of the planet, be they the air, water, and soil of our planet – in other words, our environment? So if we take care of our life supporting systems, will they in turn not take care of us? Do we already live in abundance and don’t even know it?

• Is LOVE OF NEIGHBOUR referring to STEWARDSHIP of the relationships with our family and community, and that if we take care of our families and communities, will they in turn not take care of us?

• And finally, is LOVE OF Y(OUR)SELFF referring to STEWARDSHIP of our own body, and by taking care of our organs and body, will not our body and organs take care of us?

• Is this the secret to healthy living and the creation of a healthy nation – to love GOD, and to love your neighbour as you love yourself, with all your heart, soul, strength and mind???????

• Is STEWARDSHIP OF OUR BODIES, OUR COMMUNITIES AND OUR NATURAL RESOURCES not the same as LOVE of COUNTRY and putting our COUNTRY above SELF???

8 A “(w)holistic” grounded, bottom-up approach to preventative health maintenance and health promotion!

I will now leave you with some pearls of wisdom that can give you a head start in creating a healthy life for yourself, your family and other members in your community.

• “Let food be thy medicine and medicine be thy food”. – Greek Physician Hippocrates

• Adopt a Whole-Food Plant-Based Diet

“The programme is based on WHOLE OR MINIMALLY PROCESSED PLANTS, primarily fruits, vegetables, whole grains, tubers, and legumes. IT EXCLUDES OR MINIMISES ANIMAL-BASED FOODS such as meat (including poultry and fish), dairy, and eggs, AS WELL AS REFINED FOODS LIKE BLEACHED FLOUR, REFINED SUGAR, AND OIL.”

• Eat a wide variety of fruits and vegetables as the Nutrition Rainbow is God’s promise and gift to us that He would help us out of the deluge of cardiovascular diseases and cancers that are now flooding our geopolitical and socioeconomic landscapes.
• Drink plenty of water – 8 to 10 glasses a day for maintenance and double this when you sweat a lot. Remember that water is life and that every drop counts.

• Don’t smoke, and minimize the amount of alcohol you consume!!! Better yet, avoid alcohol and ganja smoking. There are healthier and wholesome ways to get high on life.

• Exercise – ½ hr day, everyday; the health benefits are there for all to see
Figure 8.2: The health benefits of exercise

- Increase exposure to sunlight – ½ hr/day – the health benefits outweigh the risk of cancer from sunlight!

- Get enough sleep -7 – 8 hrs a day; sleep is to the brain, what exercise is to the heart, and what fiber is to the gut.

- Reduce stress – meditate, help create enabling and supportive environments at home, work, and neighborhood.

- Get annual check-ups, and screened for hypertension, diabetes, obesity, high cholesterol, breast, cervical, prostate and colon cancer; be on the alert for mental and social risk factors in yourself, your community and your environment.

- Get involved in community-building and helping to foster psychosocial reintegration and political de-tribalisation, as only by a bottom-up approach would we effect change!!!!

- And finally don’t forget, that PREVENTION coupled with CommUNITY is the CURE for all of our dis-eases!!!!!!!

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