

**Mr. William E. Clarke
President and CEO, Scotiabank
Public Lecture, Opening ceremony
MAJ Annual Symposium**

I am honoured to address you this evening at the opening ceremony of your annual symposium, although to tell the truth, I'm not sure why a group of doctors would want to hear from a banker at the beginning of your conference.

INTRODUCTION

Of course Scotiabank has a long history of involvement in the health sector. The Bank has donated \$197 million to the health sector over the past ten years. These donations have been made through our vehicle for corporate social responsibility, the Scotiabank Jamaica Foundation (SJF). Our focus through the Foundation has been the alleviation of poverty and distress among the most vulnerable Jamaicans, especially in the areas of health and education. Total donations since the establishment of the Foundation equal \$367 million. In the area of health, our projects include:

- The construction of the Scotiabank Centennial Accident and Emergency Unit at the University Hospital of the West Indies in 1989. The SJF maintains the Unit and spent a further \$35 Million to expand the facility, which was officially re-dedicated last Friday.
- Laparoscopic equipment valued at \$3.8 million to the **Spanish Town Hospital in 2004.**
- A **Mobile Mammography Unit for the Jamaica Cancer Society** purchased for \$10 million in 1989 and which the Foundation maintains.
- The Scotiabank Jamaica Foundation Haemodialysis Center at the **Cornwall Regional Hospital** established in 1997 with \$20 million and maintained at \$7 million per annum. In June 2005, the SJF donated \$5.2 million for the purchase of new dialysis equipment for this unit.

- The Renal Unit at the **Kingston Public Hospital** set up at a cost of \$19.3 million with an annual maintenance of \$1.7 million.
- And \$12 million to build the Accident and Emergency Unit at the **Port Antonio Hospital**.

We also have a number of current commitments to the sector. For example, we have earmarked \$35 million to establish a Renal Unit in Mandeville to serve the dialysis patients of central Jamaica. This is based on the need for these resources and we will begin work as soon as the hospital identifies the appropriate space to house the unit. I am not sure if our extensive participation in the health sector qualifies me to address you this evening, but since you have asked me, I will give you my layman's views on your theme.

THE LECTURE

I find the topic "*Medicine across the Ages: Challenges, Advances and Updates*" interesting, because there are certain trends in medicine that have fascinated me in recent times. One writer sums up medical history as follows:

Patient: "I have an earache."

2000 B.C. Here, eat this root.

1000 A.D. That root is heathen. Here, say this prayer.

1850 A.D. That prayer is superstition. Here, drink this potion.

1940 A.D. That potion is snake oil. Here, swallow this pill.

1985 A.D. That pill is ineffective. Here, take this antibiotic.

2000 A.D. That antibiotic is artificial. Here, eat this root.

This evening I want to speak to the resurgence of alternative therapies in recent years. The recent death of the late Coretta Scott King while on her way to participate in alternative cancer therapy in Mexico propelled this phenomenon to public view. More and more persons seem to be turning to these traditional healing remedies. What is even more interesting is the fact that some Western doctors are also recognising the value of these methods.

But before I elaborate on the current drift towards alternative medicine, I invite you to walk with me briefly down the path of medical history. I said **briefly**, because if we examined the entire story of medicine since the beginning of time, either we would be here all night, or I would be left here talking to myself. I suspect that the latter would be the case and since talking to oneself is a traditional sign of madness I promise I will not go beyond my allotted time.

HISTORY OF MEDICINE

Mesopotamia

To me, medical history is as intriguing as any of today's popular novels. This evening I will start in ancient Mesopotamia, where some diseases were blamed on gods and ghosts. The Mesopotamians also recognised that organs could simply malfunction, without the intervention of an evil spirit. As a result, there were two types of professional medical practitioners in those ancient days.

The first type was the *ashipu*, referred to in earlier texts as a sorcerer or witch doctor. When a patient came to him with an internal disease the *ashipu* would determine which god or demon was causing the illness. He would also check to see if the patient had brought the illness on himself as a result of some sinful action. Then he would prescribe charms and spells to drive out the disease.

Sometimes the *ashipu* would refer patients to another healer called an *asu*. The *asu* was a specialist in herbal remedies and is sometimes called a "physician" in ancient texts. The *asu* would apply empirical medication: washing, bandaging and making plasters to heal wounds.

However the Law Code of Hammurabi (1700 B.C.) speaks of another kind of Mesopotamian physician. These physicians also performed surgery and carried liability for their mistakes. They were paid very well for saving the life of a person of high status, much less for saving a slave's life. But they paid a similar high price for mistakes: If a slave died after surgery, the surgeon had to pay the price to replace him.

However if a person of high status as a result of the operation, the hapless surgeon could have his hand cut off.

Ancient Mesopotamians also visited temples of gods and goddesses in search of healing and excavations of these sites have yielded many useful medical texts. Rivers were also considered sources of healing and sometimes villagers would build a small hut near a river to help provide patients and their families with easier access to the healing source. Interestingly enough, the medical profession was not limited to men and there was a position called 'Lady Director of lady Physicians.'

BABYLONIA

The Babylonian physicians also used a combination of medicine, prayers and magic to treat their patients. They would often make images of evil spirits out of clay and smash them to restore the invalid to health.

ANCIENT EGYPT

The ancient Egyptians wrote many texts covering diagnosis, treatment and prescriptions for illnesses. They believed that humans were born healthy and illness or death was the result of some agent foreign to the body. However, here again rational thinking and sound medical observation existed side by side with magic and sorcery. Wounds or intestinal worms received rational treatment, since the agent was visible.

On the other hand, their ignorance of microbiology led them to conclude that internal diseases arose from evil gods, divine punishment or magical procedures. Physicians were expected to deal with the evil before starting actual treatment of the illness. Medical texts included magical elements and the prescriptions for some diseases were a combination of medicines and magic. They also perfected the art of mummification, which still amazes modern experts. The knowledge of the human body garnered from the embalming practice gave rise to an advanced study of anatomy and physiology. In fact the Ebers Papyrus precisely describes the position of the heart and illustrates some disorders such as skipped beats.

ANCIENT CHINESE MEDICINE

The intellectual framework of Chinese scientific thinking resides in the concept of the Yin and Yang. The mythical Yellow emperor of the third millennium BCE is supposed to have written that the Yin and Yang principle is the source of life and death. According to these writings, Yang is the force of light, while Yin is the concentration of the forces of darkness. Medical practice revolved around finding the origins of disease using the Yin and Yang framework.

ANCIENT GREECE

Ancient Greece gave us the beginnings of western medicine, which in its early stages was a theurgic medicine; i.e. diseases were a type of divine punishment. The serpent as a medical symbol also originated with the Greeks, although authors disagree as to its exact meaning.

Notwithstanding its origins, the ancient Greeks had a very interesting way of using the serpent in treatment. When relatives brought their sick to the temple, patients were fed potions and then made to walk through an underground passage with serpents. The purpose of this was to frighten the patients into a state of shock so that the god would appear before them and heal them.

The Greeks also gave us Hippocrates, the father of modern medicine, whose oath forms the ethical basis of your profession even today. Hippocrates espoused a holistic approach to medicine, which viewed disorders as imbalances in equilibrium. He also recommended that physicians allow nature to take its course in healing, along with the conservative use of therapies. One of his favourite maxims was “Life is brief, art is long, opportunity is fleeting, experience is fallacious, judgement is difficult”.

THE SCIENTIFIC REVOLUTION

Universities used Hippocratic texts until 1700, but the 17TH century marked the beginning of the scientific revolution and medicine, as we know it today. During that century scientists achieved a breakthrough in understanding blood circulation and the doctrine of contagion. However, the developments were slow at first: for example, I'm sure those of us who must undergo surgery today are grateful that we do not live at the beginning of the 18th century. I understand that surgeons had to operate quickly to minimise the risk of infection. Patients had a session with their confessor before the operation and were kept quiet by servants holding them firmly down during the surgery itself. Most surgeons knew nothing about anatomy and were generally seen as uneducated people.

It is also interesting to see how culture influenced medical developments: the stethoscope was invented because a male doctor could not put his ear on a woman's chest! Despite the slow start, the 17th to the 20th centuries yielded medical discoveries and inventions too numerous to mention. Advances in epidemiology, microscopic anatomy, microbiology, semiotics, cell pathology, antibiotics, chemotherapy, X-rays, endocrinology, pharmacology and surgery have given us medical science that is light years away from the time of the ancient Mesopotamians.

MODERN MEDICINE

As a result of the scientific revolution, modern medicine gained an impressive array of tools for diagnosing and treating illness. Medical practice became objective: some say also reductionist and materialistic. When I visit the doctor and describe my symptoms, he can order an array of biological, molecular and chemical tests. He also has a number of diagnostic machines at his disposal, such as x-rays, CAT scans and MRIs, to name a few. There are many new categories of drugs and sophisticated drug delivery systems. This means that when it's time to treat the illness, the choice of pharmaceuticals is also impressive. In fact, sometimes when patients look at our prescriptions we wonder if doctors aren't using all their options at once.

Surgery is now performed under carefully sterile conditions and advances in anaesthesiology have made many wonderful procedures possible. (*Thankfully without the need to hold down the patient*). Some of these developments have been nothing short of astounding: equivalent to putting a man on the moon. Many organ transplants are now only subject to the availability of organs: the technology and procedure are well developed. Reconstructive surgery has developed to the point where doctors have been able to give a patient a whole new face. DNA technology has created DNA-based diagnostics that can be used for screening and developing potential biotechnology-based drugs, or for ensuring drug efficacy and safety in patients. When a layman like me considers the knowledge, skill and technology that are now available to modern doctors, I am in awe.

HAS MEDICAL SCIENCE COME FULL CIRCLE?

Yet, if you observe some of the current trends in medicine, you will question if the science is not about to come full circle and return to the philosophy of ancient days. In some medical circles, wellness is the buzzword and many organisations, including Scotiabank are introducing wellness programmes for their staff. These are aimed at ensuring a balanced lifestyle for employees including exercise, diet, and preventive measures. Scotiabankers now have regular access to exercise classes as a part of the employment experience.

There is also a proliferation of remedies, which focus on the mind-body link. These suggest that many illnesses start in the mind and that by patients can participate in their healing by changing how they think. Several hospitals in Europe and North America now include prayer and traditional methods such as acupuncture in their treatment regimes. It is now possible to receive a diagnosis and treatment using both Western medicine and Traditional Chinese Medicine (TCM) at general hospitals in Taiwan. Patients receive a double diagnosis and after beginning Western treatment, they receive traditional Chinese remedies to counteract the side effects of the western remedies. Like Coretta Scott King, many westerners suffering from chronic illnesses are travelling to Latin America and the Far East to try traditional cultural treatments. Homeopathy is emerging as an alternative to harsh medicines.

HEALING AND INTENTION

An increasing number of western doctors and scientists are investigating the efficacy and healing methods of these alternative practices. One of the concepts that most interests me is the connection between healing and intention.

The Institute of Noetic Sciences in California has conducted studies on the effects of healing intention on cultured cells and truly random effects. As I understand it, Noetic science emphasises the central role of the self in healing. The researchers exposed human astrocytes to shielded environments where healing mediations occurred. They say that the growth of the cells in the treated environments as opposed to the control group confirms the positive impact of healing intention on cell growth.

Researchers at the Centre for Frontier Medicine in Biofield Science and the Department of Medicine at the University of Arizona, claim that experiments demonstrate the effect of sound vibrations (music and noise) and biofields (bio electromagnetic and healing intention) on biological systems.

Research at the University of California's Department of Nutrition shows that creating an optimal healing environment (OHE), which includes healing intention, may be useful in treating childhood obesity.

And work at the University of Freiburg in Germany suggests that the healing intention begins within the health care professional. The thesis is that health care professionals who embody mindfulness, love, compassion and awareness can elicit self-healing powers in patients.

GENOME THERAPY

All of this focus on the power of the mind to heal comes after centuries of amazing research developments and in the century which marks one of the great breakthroughs in medical science, the rough draft mapping of the human genome. In June 2000, the beginning of the 21st century, the announcement of this achievement brought many hopeful statements. Some called it "one of the most significant scientific landmarks of all time, comparable with the splitting of the atom or the invention of the wheel." The genetic information is expected to "revolutionise medicine over the coming decades, giving us new tests and drugs for previously untreated diseases." Dr John Sulston, director of the Sanger Centre said "we've now got to the point in human history where for the first time we are going to hold in our hands the set of instructions to make a human being".

THE REASON FOR THE TREND

The casual observer may wonder how it is that such tremendous scientific advances can coexist with remedies focusing on herbs and the power of the mind. He may be puzzled at this seeming regression to the days of ancient medicine, when practitioners employed medical treatment with an acknowledgement of the power of good and evil. And in fact there are large pockets of the medical community (no doubt also present in this room) who view the trend away from objective medicine as hocus-pocus. Many would probably say that is tantamount to including obeah in medical practice.

CHALLENGES

However, we must consider that despite the great strides modern medicine has made, there are some major challenges. And I believe that these have contributed to this resurgence of alternative therapies. One reason is that diseases such as the big 'C' still elude our understanding in terms of its genesis and cure, despite major breakthroughs in molecular medicine.

On the other hand, many medical practitioners are concerned about the level of unnecessary prescriptions, adverse drug reactions in hospital and the high iatrogenic death rate.

A 2003 report entitled '*Death by Medicine*' estimates the total number of deaths caused by conventional medicine at 783,936 per year in the US. This is in contrast to 2001 figures of 699,697 deaths from heart disease and 553,251 deaths from cancer. The authors of the report included four medical doctors. The categories of death were adverse drug reactions, medical error, bedsores, infection, malnutrition, outpatient, and unnecessary procedures and surgery-related. The report estimates the economic cost of these deaths at US\$282 billion. The same report calculates unnecessary medical events (hospitalisation and procedures) at 3.08 million per year, with 16.4 million people being affected.

According to a report from the US General Accounting Office, 51.5% of all drugs introduced between 1976 and 1985 had to be relabelled. This is because of serious adverse reactions discovered only after the drugs were marketed. These reactions included heart, liver and kidney failure, birth defects, respiratory arrest, seizures and blindness. Right now, if you wear contact lenses, Bausch and Lomb is recalling its new Renu Moisture Loc solution because of risk of fungal infection; the Birth control patch Otho Evra is linked to strokes in young women and the osteoporosis drug Fosamax is associated with jaw death.

Some physicians believe that these events are symptoms of rising greed in the pharmaceuticals industry, which, as you know is big business. These doctors are concerned that in the drive to sell more and more drugs, the industry is shortcutting clinical trials and “turning healthy people into patients”.

Conditions like female sexual dysfunction, restless leg syndrome and shyness have been exaggerated medicalised and turned into diseases treatable with drugs. James Nolan spoke of the tendency to characterise human behaviours as illnesses or pathologies. I am not sure what the statistics are for unnecessary prescriptions, procedures and hospitalisations in Jamaica. It is surely not of the magnitude as in the USA, simply because of the limitations of our economic resources. However, anecdotal evidence suggests that the practice of over-prescription is fairly common here.

In fact there are several horror stories of cases where doctors simply prescribed a long list of drugs to treat symptoms without consideration of the possible underlying causes. As an importer of petroleum products, we must also be concerned about the heavy dependence of modern medicine on petroleum products. This is a global problem, made more vivid by the instability of the oil industry in recent decades and diminishing world reserves.

We depend on petroleum and its by-products for energy intensive hospital procedures. But petroleum is also a key ingredient in the plastic medical supplies used in medical and surgical life-support systems. Moreover, petrochemicals are important components of analgesics, antihistamines, antibiotics, sedatives and tranquilizers. They are crucial to the manufacturing processes for many pharmaceutical products and also in making dyes and films. This massive dependence on fossil fuels is a potential 500-pound gorilla for modern medicine.

CONCLUSION: THE WAY FORWARD

I propose that in light of these deficiencies in modern medicine, the resurgence of alternative therapies serves as a reminder to us of some very important truths:

- That there is a component to human beings beyond cells, even beyond DNA that we do not, and may never comprehend.
- That we must use an appreciation of this mystery to limit the awesome power that technology has facilitated in research (such as genome mapping)
- That pharmaceutical remedies are limited in their ability to heal
- That the active participation of the patient in his/her own healing will bring more effective results
- And that health is more than the absence of disease.

We must keep in mind the warning of Dr. Thomas Szasz: **Formerly, when religion was strong and science weak, men mistook magic for medicine; now, when science is strong and religion weak, men mistake medicine for magic.**

As physicians, the way forward must be to treat patients as more than a collection of systems and organs. You cannot ignore the mental, behavioural, emotional and spiritual component of health and illness. Medical practice must regard treatment in a holistic way: educating people to play a more active role in their health and wellness. This must be the approach from government policy right down to private practice.

I urge you not allow your profession to be used by drug companies who have elevated self-interest over public interest and the desire for money over science. Practice a healthy skepticism about new drugs accompanied by slick marketing campaigns. And take the time to listen to your patients to understand when physical symptoms may be evidence of psychological disorder or lifestyle imbalance. In fact I recommend the restraint embodied in the following two quotes: From Sir William Osler:

“One of the first duties of the physician is to educate the masses not to take medicine”

And from Thomas Edison:

"The doctor of the future will give no medicine, but will interest his patients in the care of the human frame, in diet, and in the cause and prevention of disease."

Finally, I suggest that your association becomes involved in the drive for more responsible use of petroleum products.

Thank you for allowing this layman to share my thoughts with you this evening.

I congratulate you for choosing to spend your lives in the mission to heal the sick and I wish you a lively and enlightening symposium. Allow me to leave you with this quote from James Bryce:

"Medicine (is) the only profession that labors incessantly to destroy the reason for its existence."

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