

Theme : Health

Medical Diplomacy to Face The Global Health Challenges: A Case Study of COVID 19

www.africaonline.com, by Dr Mory Sumaworo, March 23, 2020

Medical Diplomacy in the Context:

Medical diplomacy (MD) has gained more credence and foreign relations weigh over the last two decades in nation's policies. According to Oslo Ministerial Declaration – global health- as a pressing foreign policy issue of our time, published by the Lancet in 2007 “As Ministers Foreign Affairs, we will work to increase awareness for our common vulnerability in the face of health threat by bringing health issues more strongly into the arenas of foreign policy discussions in order to strengthen our commitment to concerted action at the global level; build bilateral, regional and multilateral cooperation for global health security”.

The Former Director-General of the World Health Organization (WHO), Mrs. Margaret Chan said in recognition of neediness of MD as useful contemporary foreign policy tool in her opening addressing, to the Executive Board of WHO at its 132nd session ‘Health Diplomacy works’. It helps in addressing global medical and health crises both real and potential.

Having said that, the Covid-19 has set itself as the greatest threat to the world. It can be metaphorically considered as the WW3. Although there are neither Allies nor Axis Powers as they were in the WW2, but both are fighting against the common enemy, coronavirus. Considering this nature of the pandemic, and its rapidly spread all over the world, especially in the highly sophisticated health systems in Europe, Asia and the United States of America. It presents the never before neediness of the health and MD to control the situation that is now threatening not only the poor countries as usual contagious disease outbreaks do. Nevertheless, the fatality of the Covid-19 cannot be de-emphasized in China, the second largest economies in the world, Japan the cradle of technology, Singapore, the spot of innovation and hygiene, the US the largest economy and the world's most powerful nation on earth, Saudi Arabia, one the wealthiest nations on the in the world, the United Kingdom with its reliable and excellent healthcare system, and the EU with all it has achieved medically, economically and developmentally.

Worrisomely, the pandemic has penetrated the fragile medical systems in some parts of Asia and Africa. The aid-providers are the aid-solicitor now, not necessarily to build their infrastructures or create economic prosperity as the aid normally does, but to use MD in combating the Covid-19 that is controllably spreading. So, what is the aid that is urgently needed by all? What are the roles of every country in the comity of nation towards this common whipper (Covid19)?

The answer is to accentuate and effectively use health and medical diplomacy among the nations. It is, however, means in this context, medical, clinical with their related collaboration and sharing information to uproot and deracinate the virus from the World. Medical diplomacy or MD is the concept, which persuades the members of the comity of nations to support the efforts of their counterparts and international organizations like WHO to defeat disease; Covid-19. Besides, Global Health Diplomacy (GHD) as it is at times acronymized as the international and foreign relations practice through which the governments along with Non-State actors medically coordinate to address global health

issues such as Ebola, HIV-AIDS and Coronavirus.

Academically, its nomenclature may suggest that it solely falls under Political Science and International Relations. However, in practice, it is a multi-disciplinary subject that brings several areas of studies together including, Medicine, Law, Politics, Management, Sociology, Economics, Trade Policy and others. This is why, in order for a nation to institute an effective medical diplomacy, it should not only focus on conventional diplomats or medical doctors or healthcare professionals. It may need a conglomerate of different specialists from other related disciplines to actualize its objectives.

It is worth mentioning that many foreign missions do focus on conventional political concerns, education, culture and trade. Embassies and foreign missions have a special attaché for these interests. However, it is hardly heard about the medical attaché at foreign representations in the host nations.

Medical Diplomacy (MD) can sometimes be applied even by political rivals who might not be on the same political boat. For instance, when Hurricane Katrina hit New Orleans of the United States of America on August 29, 2005, Cuba took several steps to strengthen and apply its relations with the US through medical diplomacy. The moment the information reached Dr. Juan Carrizo, a Cuban famous medical doctor, academic and former Dean of the Latin American Medical School reacted within a military precision as it is rightly put by Andrew Jack in Financial Time article: 'Cuba's Medical Diplomacy' Dr. Carrizo mobilized 1100 medical doctors and nurses to be sent to assist addressing medical needs resulted from Hurricane Katrina. This was the first step taken by Cuba.

The Second step was the political statement by Fidel Castro, then the President of Cuba, when he stated "Our country was closest to the area hit by the hurricane and was in the position to send over human and material aid in a matter of hours. It was as if a big American cruise ship with thousands of passengers aboard were sinking in waters close to our coast. We could not remain indifferent" It is immaterial whether the US should have accepted the offer or not, that is not the central of this discussion.

What really matters here is, Cuba's approach to uphold medical diplomacy when it was needed either by the US or for the best interest of Havana and Cuban People in general. It can be extrapolated from Fidel's speech that medical diplomacy can be urgently needed and stringently required when there is a global or regional threat such as Ebola and Covid19. Notwithstanding the Cuban intended medical assistance was not accepted by the United States, but it set a great precedent for usefulness and usage of medical diplomacy even between the two political rivals.

Importance of Medical Diplomacy:

It is noteworthy to state that medical diplomacy (MD) is very paramount in today's international relations and politics due to its never before globalized nature of goods and services that leads to never before the movement of the people. A medical crisis in the Far East may easily affect the West, Africa and the rest of the world in no time. For example, 2014 Ebola outbreaks in the West African countries; Liberia, Guinea and Sierra Leon affected the United States and many other African nations in a very short period of time. Equally so, the Covid19 that emerged in Wuhan had affected more than 160 countries in less than six months. International trades and transportation had been seriously wounded by the outbreak. Paradoxically, allies are restricting the movement of their friends in fear of the pandemic.

The United States' President J. Donald Trump suspended all flights from Europe excluding the United Kingdom and later on, it had been included in the suspension. This is very strange in the US-EU or Europe relations. However, the decision was made by Washington because of the gravity and rapid spread of the virus with its advert impacts on peace, security, trade and economies, basic human rights and civil liberties, it might even be considered as the WW3 thought there are neither Allies nor Axis powers. But the common enemy is the Covid 19, which medical diplomacy being played to defeat. Based on the above, the medical diplomacy is significant for contemporary foreign relations for several reasons. Some are as follows:

1. Since the early 1990s, when Harvard University's pundit, Joseph Nye, Jr., introduced the cotemporary concept of soft power in his popularized book "Bound to Lead: The Changing Nature of American Power as opposed to hard power, medical diplomacy has been playing a major role in addressing many burning international political issues in lieu of radical diplomatic business. It shows the goodwill of the giver to the receiver. According to Marrogi and Al-Dulaimi in their article – Medical Diplomacy in Achieving US. Global Strategic Objectives- published by Join Force Quarterly (2014) "Although the concept of soft power is not universally embraced, using economic, cultural, scientific and healthcare resources can create a dominant soft power, when carefully applied, might generate favorable behavior from other nations and their leaders and build enduring partnerships to promote regional and global security'.
2. It solidifies and strengthens the national, regional and continental efforts to address medical and health crises such as Ebola, HIV-AIDS and Coronavirus.
3. It may help to reduce and de-escalate political tensions between/ among the nations.
4. It is more selfless tool within the realm of politics to serve the humanity. Unlike trades and politics between/among the nations, which are mainly based on interests with disregarding some social and humanitarian concerns such as pollution and political crises because of the interest of politically heavy-weight nations.
5. It indirectly helps to destress local healthcare and medical infrastructures.
6. It leads to sustainable development growth. A healthy world is a wealthy globe, and a wealthy globe is bound for sustainable development and shared happiness and prosperity.
7. It helps to secure the future of globalization. Covid 19 has clearly illustrated that pandemic is the biggest threat to globalization even between and among friends and allies. Donal Trump's pronouncement to suspend all flights from Europe including the United Kingdom serves a great lesson for magnitude of healthcare crisis against internationalization and globalization.
8. It has been pointed out by Suleman, Ali and Kerr in their article ' Health diplomacy : a new approaches to Muslim World' published by Globalization and Health, that the nicest field of health diplomacy provides a political framework which aims to deliver the dual goals of improved health in target populations and enhanced governmental relations between collaborating countries.

ILLUSTRATIONS OF MEDICAL DIPLOMACY DURING EBOLA AND CORONAVIRUS:

Firstly, the United States of America has a diverse group of healthcare industries accounting \$2.8 trillion, 17.8 percent of its GDP. Through this, the US delivers healthcare assistance through hospitals and support medical research institutions. As a result, these activities play a pivotal role in U.S asymmetric response to unpredictable challenges overseas both directly through the care of patients and more generally in the economic

benefit (Marrogi & Al-Dulaimi, 2014). The US foreign aid package normally includes billions of dollars in support of healthcare system around the World. For instance, the largest government-owned referral hospital in Liberia, JFK medical centre was built by the US. The Center was constructed at the request of Liberia's former President William V.S Tubman when he visited the States in 1965 and met with President John F Kennedy. The USAID funded the project with \$ 6.8 million loan and \$ 9.2 million in grants from USAID and a \$ 1 million contribution from the Liberian Government. The center was opened in 1971.

Secondly, when Ebola hit the West African region in 2014, Cuba provided nearly half a million medical professionals, according to Vijay Chattu in an article "Politics of Ebola and the Critical role of global healthcare diplomacy for the CARICOM, published by Journal of Family Medicine and Primary Care (2017). 165 were sent to Sierra Leone, 83 doctors arrived in Liberia and Guinea. This initiative took by Cuba led the United States to say that it had made an impressive effort in the anti-Ebola campaign. In the same direction, Havana International Conference on Ebola was called and some senior medical professional from the USA attended the event from the Center for Disease Control and Prevention. Despite the historical and political rivalry between the countries, medical diplomacy was able to shorten the distance between them to have professional discussions on global health issues;- In a highly unusual break with procedure between the two nations, which do not have normal diplomatic relations, Raul Castro said pointedly "Cuba is willing to work side by side with all nations including the USA in the fight against Ebola" (Chattu, 2017).

Thirdly, the Kingdom of Saudi Arabia during the Ebola Crisis in the West African Region as well played its card in medical diplomacy. The Financial Afrik published that Saud's former King, King Abdallah gave \$ 35 million grant to the West African badly affected Ebola countries; Liberia, Guinea- Conakry and Sierra Leon. The package included; providing schools with thermal sensors and medical examination equipment designed to diagnose the disease, thereby facilitating its treatment. Providing thermal sensors and medical examination equipment at airports and bus satiations. And establishment specialized treatment center in each of the three endemic countries including Mali. For the Covid-19, the Kingdom also gave \$ 10 million as part of its contributions to a total 675 million packages in funds that the Strategic Preparedness and response Plan (SPRP) has called for, of which 61.5 million for WHO's urgent preparedness and response activities for the period of February to April 2020. According to Taleen Davies, in Healthcare IT news, the Saudi's \$ 10 million is mainly allocated to the Research and Development to create better understanding of Covid-19 and fast track the development of vaccines, diagnostic and therapeutic.

Fourthly, China has presented herself over the last five decades as frontrunner of soft power through economic and medical diplomacies mainly to the poorly managed countries in Africa and Asia. But during the rapid spread of Covid-19, she has opened a new channel of MD to advanced countries in Europe. According to Financial Times March 18 article 'China ramps up coronavirus help to Europe' the capital of the European Union, Brussels has thanked China for offering to provide more than 2 million medical masks and 50000 coronavirus testing kits. Urshula Von der Leyen, European Commission president, said she spoke to Li Keqiang, China premier, and agreed with him that the two powers should support each other in times of need. This China's deal with the European Union came as reciprocity of what did to her as Mrs Leyen pointed that 'Today we are the center of the coronavirus pandemic and we need protective equipment ourselves as China needed it when it was the centre of the virus outbreak and European Union helped.

INTRA-AFRICAN MEDICAL DIPLOMACY:

Africa is lagged behind in terms of fostering Intra-African health medical diplomacy. The continent still heavily depends on the external medical aid in during the crises. It is however, imperative for the African Union and its sub-regional organizations consolidate their efforts and cordially coordinate medically and financially to address pandemic and medical crises on the Continent. This does not only serve the health sector, rather it plays a vital role in the African integration, trades, socio-political solidarity, self-reliance and more importantly swift response to health problems before the global engagement that requires in most often lots bureaucratic processes. Intra-African diplomacy is very paramount for the Continent, it helps to contain pandemics.

CHALLENGES AND PROSPECT OF MEDICAL DIPLOMACY:

The prospect medical diplomacy is brighter and more promising as it concerns the entire World, especially after the devastating socioeconomic and trade impacts the Covid-19. It is a hope and anticipation that it will be the central of regional and global networks to coordinate and collaborate to prevent and fight pandemics and other dangerous diseases together in order to halt their spread to other countries and regions. The global economic performance is every nation's concern. Therefore, not giving political weight to health and medical diplomacy will badly affect the global economy. For instance, PwC conducted a survey on the impact of Covid-19 financially and economically, it concluded that 80 percent of participant concerned that the Covid-19 global health emergency will lead to a global economic recession. According to the UN News, Covid-19 likely to cost economy \$ 1 trillion during 2020 based on the estimate of the UN's Trade and Development Agency (UNITAD). Such a size of economic loss must grasp the attention of the comity of nations to strengthen bilateral and multilateral medical diplomacy to prevent its reoccurrence. With this, there is a prospect for the World's leaders to start reconsidering their foreign policies toward medical and healthcare diplomacy.

On the other hand, the medical diplomacy also faces some challenges. For instance, interference of political interests as a barricade to MD. The case study of Cuba's initiative to send 1100 health professional to the United States of America during 2005 Hurricane Katrina, is a typical example. The offer was not received and accepted the US government based on its political differences with Havana. Another obstacle that is confronted by MD is sustainability of its efforts. In some countries, other advanced nations may supply and support them with medical infrastructures like hospitals, clinics and clinical materials, but they software component – trained medical doctors and healthcare professionals – is absent durability of efforts will be the great challenge.

CONCLUSION:

Health crises pose fundamental challenges to international relations and have been a major focal point of contests for global influence as pointed by Emma Anderson in African health diplomacy published by the Journal of International Relations. Therefore, it is very paramount for the comity of nations to reconsider their bilateral and multilateral cooperation to excessively and exceedingly include medical diplomacy in the package. It will be of a great relevance to keep the World safe and prevent a global economy from recession due to global health crises as it is being witnessed by Covid-19, which is estimated by the UN's Trade and Development Agency (UNITAD) to cost the global trade \$1 trillion. Finally, medical and healthcare diplomacy leads to three different deliverables; political interest, commitment to protecting universal human rights and direct and indirect

economic gains. A direct economic gain through some conditionalities of medical diplomacy between/ among the collaborating nations. An indirect economic gain through saving the global economy from recession due to an unthwarted pandemics in the world such as Covid-19

Survivors and victims on shocking state-sanctioned organ harvesting in China

Fox News, by Hollie McKay, October 26, 2019

Having hepatitis C may very well have saved Jennifer Zeng's life.

In February 2000, she was arrested for being a Falun Gong practitioner and interrogated intensely about her medical history at a Labor Camp in China's Da Xing County, she said. Zeng's blood was drawn and she told them she had hepatitis C before she took up the spiritual practice.

"Twelve days later, my (cellmate) died as a result of forced feeding," Zeng told Fox News. "Having hepatitis C might have unqualified me as an organ donor."

It's the stuff of nightmares. And it has been buried from public view, hard to prove, and shrouded beneath the cloak of silence for almost two decades.

But anecdotes and evidence are slowly bubbling to the surface that the organs of members of marginalized groups detained in Chinese prisons and labor camps are unwillingly harvested. Most affected is a spiritual minority, the Falun Gong, who have been persecuted for adhering to a Buddhist-centric religious philosophy grounded in meditation and compassion.

After 12 months of independent assessment of all available evidence, the seven-person China Tribunal panel – which was initiated by the International Coalition to End Transplant Abuse in China (ETAC), an international human rights charity – delivered its final findings in June. The tribunal, chaired by Sir Geoffrey Nice QC who led the prosecution of Slobodan Milosevic in the International Criminal Trial for the former Yugoslavia, stated with "certainty" that "in China, forced organ harvesting from prisoners of conscience has been practiced for a substantial period of time."

"Forced organ harvesting has been committed for years, and Falun Gong practitioners have been one – and probably the main – source of organ supply," the report concluded, pointing to the growing transplant industry already worth more than \$1 billion.

The report underscored that there were "extraordinarily short waiting times for organs to be available for transplantation," and numerous websites advertised hearts, lungs, and kidneys for sale – suggesting an on-demand industry. The Tribunal concluded that the commission of Crimes Against Humanity against Falun Gong and Uighurs had been committed.

Witness testimonies provided to the tribunal, and interviewed by Fox News, paint the picture of an unfathomably callous trade often performed when the victims are still alive.

Han Yu was kidnapped on July 20, 2015, and detained for 37 days in Beijing's Haidian District Detention Center.

In May 2004 – three months after her father disappeared into a detention center – Han Yu received a call that her father, a Falun Gong practitioner, was dead. But it wasn't until almost a month later that the family was allowed to view the body at Liangxiang District Xiao Zhuang village morgue, with dozens of authorities surveilling their every move.

"I saw obvious injuries on his face, even after the makeup, the severe bruise below his left

eye stood out. There was a trace of stitches starting from the throat down to where his clothes covered,” Yu recalled. “I tried to unbutton the clothes, the police saw and quickly dragged me out. Later another family member went in and continued to unbutton and found stitches that went all the way to the stomach.”

She suspects her father was a victim of organ harvesting. The family was not given an autopsy, Hu stressed, and the body was hurriedly cremated.

“We were not even allowed to cry when he was buried,” Hu continued, reflecting on the throngs of authorities that trailed their every move and prohibited any photographs from being taken. “After I heard about organ harvesting, I couldn’t imagine what had happened to my father before his death. It happened, and it is happening.”

Jiang Li also believes her father, Jiang Xiqing – also of the Falun Gong faith – was a victim to the harrowing practice. He was arrested on May 2008 and sent to a forced labor camp. On the afternoon of January 27, 2009, she and three other family members went to visit him.

“His mental and physical health was normal. Then at 3.40 p.m. the next day, the labor camp called my brother and said he had died and immediately hung up,” she said. “Seven of my family members arrived at the mortuary house at 10.30 p.m. with the guidance of police officers. They read out the regulations – we could see the body for only five minutes, no cameras or communication devices, and we could only go to the freezer room to see Jiang’s head and not his whole body.”

But when her older sister touched his face, she screamed that his philtrum was still warm, and his upper teeth were biting his lower lip. He was alive.

“We pulled out my father’s body halfway. We touched his chest, and it was warm. He was wearing a down jacket. My older sister prepared to perform CPR,” Li continued. “But were each forcibly dragged out of the freezer by four people. Uniformed and plainclothed officers pushed my father’s body into the freezer. They demanded that we quickly sign for cremation and pay the fees.”

The family has since attempted to seek some sense of justice – their lawyers ended up behind bars, and their family home was raided. In 2010, Li said she was terminated from her job without explanation and detained.

Survivors routinely point to the frequent physical screenings, ultrasounds, and X-rays as further corroboration that victims are being monitored to determine whose organs are healthy enough for transplantation purposes, as most are pushed to the brink in allegedly tortuous interrogation sessions.

Moreover, the China Organ Harvest Research Center (COHRC), which also testified before the China Tribunal, published its own incriminating report in July after years of underground research and analysis, deducing that the “on-demand killing of prisoners of conscience is driven by the state, run on an industrial scale and carried out by both military and civilian institutions.”

China boasts that it sustains the largest voluntary organ donation system in Asia, but experts contend that the country does not have a history of willful organ donation and the official figures – 10,000 transplants each year – “understates the real volume,” which

researchers pledge is likely upward of 60,000-100,000 annually.

According to the COHRC, there are mountains of money to be made. Data from 2007 shows that hospitals charged more than \$65,000 for a kidney transplant, \$130,000 for liver, and more than \$150,000 for lung or heart. Desperate patients might make a high-price “donation” for a new organ at top-speed.

The practice is alleged to have started in the 90s on a small-scale, but kicked into high gear around 2000 and focused on the Falun Gong. It was initially characterized as targeting the forcible removing of organs of prisoners on death row.

“China later claimed that death row prisoners consented to donate their organs to the State to redeem themselves for the crimes they had committed against the State, a practice China claimed to have stopped in January 2015. However, the explosion of organ transplant activities in China from 2000, together with reports of thousands of transplant tourists going to China to purchase organs, suggests a larger supply of organs than could be sourced from executed criminals alone,” the Tribunal states. “The scale of the Chinese transplant industry, together with other evidence, points to the possibility that China is involved in forced organ harvesting and selling for profit organs from prisoners of conscience.”

The Tribunal affirmed that it “has had no evidence that the significant infrastructure associated with China’s transplantation industry has been dismantled and absent a satisfactory explanation as to the source of readily available organs concludes that forced organ harvesting continues till today.”

Grace Yin, a leading researcher at the COHRC, also asserted that by admitting to less severe abuse and proclaiming it was only happening to those awaiting capital punishment, the government was purporting to “divert attention away from the more severe issue.”

“The root issue still goes back to the Communist Party’s persecution of faith groups and its animosity toward groups that it perceives as threats to its ideological control,” she said.

Olivia Enos, a senior policy analyst and Asian studies expert at The Heritage Foundation, concurred that organ harvesting has long been a largely overlooked aspect of human rights abuses and has been predominantly reported by the Falun Gong.

“In recent months, however, as the crisis in Xinjiang gathered steam, new reports have emerged that Uighurs may be having their organs harvested,” she observed.

Xinjiang, also referred to by some as East Turkistan, has made headlines with the revelations that upwards on one million belonging to the Muslim minority have been carted off into concentration camps. Chinese leaders have categorically denied misconduct, insisting that Uighurs are in “re-education camps” and doubled-down that the government respects religious rights. Four Uighurs testified before the China Tribunal that they had been organ scanned whilst in detention.

Salih Hidayar, ambassador to the U.S. for the East Turkistan Government in Exile and a leader in the beleaguered Uighur community, told Fox News that the Chinese government claims that “written consent is required for all organ transplants,” but in reality it is hardly likely there was any such consent, and if there was it would have been “extracted through torture.”

“Voice prints and retina scans were collected in 2016-2017 in East Turkistan, and some of us fear that they might be used for organ matching,” Hudayar continued. “We fear that today, the Chinese Communist Party may be harvesting the organs of not just Falun Gong practitioners, but also Uighurs, Tibetan Buddhists, Chinese Christians and other prisoners of conscience.”

But some political leaders are pushing for the U.S. to take a stronger stance in investigating the horrific allegation.

“It is just so bizarre it was hard to believe. That (governments) can defile a human being like that,” Shawn Steel, California’s Republican National (RNC) Committeeman, told Fox News. “Medical tourism is big business; if you are wealthy, you can get the organ you need in a couple of weeks. Thousands are being sacrificed every year, and it is not being discussed.”

Earlier this year, Steel introduced a resolution to the RNC condemning Beijing’s practice of involuntary organ harvesting from inmates, which was unanimously adopted at the quarterly conference in August. It marked the first explicit charge from a prominent U.S political party on the matter.

Representatives for the Chinese Embassy in Washington did not respond to a request for comment, but the government has previously denied any accusations of illicit organ harvesting or mistreatment of prisoners.

And many assert the practice is still happening.

Yu Ming, 47, another member of Falun Gong and newly arrived in the United States, claimed that he was “kidnapped” multiple times by law enforcement, the most recent time in August 2013, and locked up in the Shenyang Detention Center where he was allegedly beaten into oblivion.

As time went on, his friends disappeared. The family of one Falun Gong companion, Gao Yixi, recalled seeing “his eyes opened wide, his stomach deflated and no organs inside.”

He secretly recorded footage of undercover interviews at major military hospitals in mainland China over the past couple of years, he said, and has turned it over to the Tribunal as evidence for unlawful organ transplants.

“Only a pile of ashes is given to the family members,” he added. “We cannot be silent.”

AI and Health Care Are Made for Each Other

The Time, by GERALYN MILLER, October 24, 2019

Artificial intelligence has the potential to radically change health care. Imagine a not too distant future when the focus shifts away from disease to how we stay healthy.

At birth, everyone would get a thorough, multifaceted baseline profile, including screening for genetic and rare diseases. Then, over their lifetimes, cost-effective, minimally invasive clinical-grade devices could accurately monitor a range of biometrics such as heart rate, blood pressure, temperature and glucose levels, in addition to environmental factors such as exposure to pathogens and toxins, and behavioral factors like sleep and activity patterns. This biometric, genetic, environmental and behavioral information could be coupled with social data and used to create AI models. These models could predict disease risk, trigger advance notification of life-threatening conditions like stroke and heart attack, and warn of potential adverse drug reactions.

Health care of the future could morph as well. Intelligent bots could be integrated into the home through digital assistants or smartphones in order to triage symptoms, educate and counsel patients, and ensure they're adhering to medication regimens.

AI could also reduce physician burnout and extend the reach of doctors in underserved areas. For example, AI scribes could assist physicians with clinical note-taking, and bots could help teams of medical experts come together and discuss challenging cases. Computer vision could be used to assist radiologists with tumor detection or help dermatologists identify skin lesions, and be applied to routine screenings like eye exams. All of this is already possible with technology available today or in development.

But AI alone can't effect these changes. To support the technical transformation, we must have a social transformation including trusted, responsible, and inclusive policy and governance around AI and data; effective collaboration across industries; and comprehensive training for the public, professionals and officials. These concerns are particularly relevant for health care, which is innately complex and where missteps can have ramifications as grave as loss of life. There will also be challenges in balancing the rights of the individual with the health and safety of the population as a whole, and in figuring out how to equitably and efficiently allocate resources across geographical areas.

Data is the starting point for AI. And so we need to invest in the creation and collection of data—while ensuring that the value created through the use of this data accrues to the individuals whose data it is. To protect and preserve the integrity of this data, we need trusted, responsible, inclusive legal and regulatory policies and a framework for governance. GDPR (General Data Protection Regulation) is a good example: in the E.U., GDPR went into effect in May 2018, and it is already helping ensure that the health care industry handles individuals' information responsibly.

Commercial companies cannot solve these problems alone—they need partnerships with government, academia and nonprofit entities. We need to make sure that our computer scientists, data scientists, medical professionals, legal professionals and policymakers have relevant training on the unique capabilities of AI and an understanding of the risks. This kind of education can happen through professional societies like the American Society of Human Genetics and the American Association for the Advancement of Science, which have the necessary reach and infrastructure.

Perhaps most important, we need diversity, because AI works only when it is inclusive. To create accurate models, we need diversity in the developers who write the algorithms, diversity in the data scientists who build the models and diversity in the underlying data itself. Which means that to be truly successful with AI, we will need to overlook the things that historically set us apart, like race, gender, age, language, culture, socioeconomic status and domain expertise. Given that history, it won't be easy. But if we want the full potential of AI to be brought to bear on solving the urgent needs in global health care, we must make it happen.

What the coronavirus pandemic tells us about our relationship with the natural world

www.thenarwhal.ca, by Emma Gilchrist, March 17, 2020

COVID-19 is fundamentally a story of humanity's ever-encroaching relationship with all other living things on this planet

There are moments in life that are etched into our collective consciousness forever. When the planes struck the World Trade Center. When Princess Diana was killed in a car crash. When the world ground to a halt to help slow the spread of COVID-19.

It's during moments like these that we often shift how we think about the world — and about our place in it.

It's easy to feel invincible in a modern society in which we live longer than ever before, never have to see where our food comes from and can point a phone at the sky and have it tell us what constellation we're looking at.

And yet, despite all of the technological advancements of the last century, we are still rendered powerless to nature — to hurricanes, floods, fires, earthquakes and, yes, viruses.

The story of COVID-19 is, at its core, a story of humanity's ever-encroaching relationship with all other living things on this planet.

In a prescient piece in *The New York Times* in 2012, environmental journalist Jim Robbins wrote about a developing model of infectious disease that shows most epidemics are a result of things people do to nature.

"If we fail to understand and take care of the natural world, it can cause a breakdown of these systems and come back to haunt us in ways we know little about," Robbins wrote.

"Disease, it turns out, is largely an environmental issue. Sixty per cent of emerging infectious diseases that affect humans are zoonotic — they originate in animals. And more than two-thirds of those originate in wildlife."

Many ubiquitous modern diseases originated in animals. AIDS, for example, came about after hunters in Africa killed and butchered chimpanzees and the virus crossed into humans.

In the case of COVID-19, the virus is thought to have originated at a wild animal market in Wuhan, China, where it may have made the leap from bats to pangolins to humans.

As we push into increasingly remote places to extract oil, gas, minerals and trees, we come into contact with new species and drastically increase the likelihood of the emergence of new diseases. A warming world is also linked to an increase in the spread of disease (one need look no further than the spread of Lyme disease in Canada for an example).

In a recent opinion piece in *The New York Times*, Peter Daszak, a disease ecologist and the president of EcoHealth Alliance, argues that as the world struggles to respond to COVID-19, we risk missing the big picture.

“Pandemics are on the rise, and we need to contain the process that drives them, not just the individual diseases,” Daszak wrote. “Plagues are not only part of our culture; they are caused by it.”

He added that spillovers of diseases from animals to humans are “increasing exponentially as our ecological footprint brings us closer to wildlife in remote areas and the wildlife trade brings these animals into urban centers. Unprecedented road-building, deforestation, land clearing and agricultural development, as well as globalized travel and trade, make us supremely susceptible to pathogens like coronaviruses.”

It’s easy right now to get caught up in the constant news updates of cancelled flights, closed borders and death tolls — and all of those things are surely important — but there is a much grander opportunity here to transform the way we think about our place in the world as one of the many living creatures that inhabit this planet.

As human activity wanes, we are now witnessing the natural world react to the slow-down in all sorts of ways: deer wandering the streets of Japan, Venice canals so clear you can see fish, improved air quality worldwide.

It’s a reminder of the tremendous impact humans have on the world around them, often without fully realizing it. It’s also a reminder of the natural world’s ability to rebound and our ability to shift our behaviour when we absolutely must.

Much ink has been spilled about what this all says about our ability to fight climate change, but a temporary decline in greenhouse gas emissions because of a deadly plague and a flailing economy doesn’t tell us much about whether this pandemic will bring lasting behavioural changes.

Will more people work remotely when this is all over? Will we ease up on massive business conferences? Will we all realize that making puzzles with our loved ones is more fulfilling than running around buying things? Will we value our concerts and classes and sports games on a new level? Maybe. But it’s too soon to say.

A few things do seem clear though.

First of all, trustworthy news and reliable facts are critically important during times of crisis. The Seattle Times, reporting at the epicentre of the biggest outbreak in the U.S., has seen a surge in readership and subscriptions.

Secondly, communities are coming together in ways we haven’t seen in many decades. Community-scale solutions are going to become ever more necessary as the pandemic spreads. Gardens. Friends. Family. Neighbours. This is a moment to take stock of the simple things and, perhaps, re-adjust our priorities moving forward.

Thirdly, change is possible. Politicians are now taking bold measures unimaginable even days ago. This pandemic will leave an enduring mark on all of us as we contemplate the fragility of life, the cracks in our globalized economy, our interconnectedness with all living things and, ultimately, our ability to envision a future different from the status quo.

How Governments Respond to Pandemics Like the Coronavirus

The New Yorker, by Isaac Chotiner, March 18, 2020

Sir Richard J. Evans, the provost of Gresham College, in London, is one of the preëminent scholars of the Third Reich and modern Germany. Best known for his trilogy about Hitler and the Second World War, Evans has also extended his scholarship to numerous other areas, including pandemics. In 1987, he published “Death in Hamburg: Society and Politics in the Cholera Years (1830-1910).” More recently, he gave a series of lectures at Gresham College titled “The Great Plagues: Epidemics in History from the Middle Ages to the Present Day.”

I recently spoke by phone with Evans in the hope of bringing some historical perspective to the coronavirus pandemic—in particular, to understand how leaders throughout history, including those with authoritarian leanings, have reacted to health emergencies. During our conversation, which has been edited for length and clarity, we discussed how new technologies, from the railways to modern medicine, have shaped outbreaks, the different ways in which the United Kingdom and the United States have responded to the coronavirus, and why, even under different forms of government, “it’s the epidemic that’s calling the shots.”

What is your biggest takeaway when you consider how epidemics have shaped human history?

Human society has always been subject to major epidemics, and has dealt with them in quite similar ways over the centuries, even over the millennia. Of course, human society itself has also changed the way in which epidemics work. William H. McNeill, the great world historian, wrote a book called “Plagues and Peoples,” where he made a powerful argument for the impact of plagues upon human society. Take the Black Death, for example, in 1349, which killed maybe half the population in Europe. The economic effects were absolutely profound, when you think of the labor shortage, for example—too few people to work the fields—and the change in social relations and social structures.

But I think it’s also a two-way process. For example, in the Middle Ages or even in the late Roman Empire, plague spread fairly slowly, and you could deal with it by quarantine, unless societies weren’t well organized enough to do that. Then you got a big acceleration in the nineteenth century that comes with the railways. Cholera was a disease that hadn’t been known outside northeast India, but the British Empire, conquering North India, opened up trade routes. Railways spread the cholera very rapidly when it got to Europe. Steamships across the Atlantic, and of course, industrialization, with massive overcrowding and poverty, made it much easier to spread it in cities and towns. It is a two-way process. That’s first thing that occurs to me.

What was it about Hamburg that made you want to study that city, and why did you think that case study was so interesting or important?

Well, it’s the only city in western Central Europe that had a large-scale cholera epidemic in 1892. It’s more or less vanished from most of Europe, apart from tsarist Russia, long before that stage. There isn’t an epidemic in Great Britain, for example, after 1866, and so I wanted to know why this one occurred so late, and why is it so bad—I mean, ten thousand deaths in about six weeks. That’s what really made me look at it.

Also, I hesitate to do this, but let me quote Lenin, who says that there are certain events

that open like a flash of lightning across a landscape. They make you see all kinds of things that you wouldn't otherwise see. Everybody who lived through the cholera epidemic in 1892 in Hamburg and wrote letters or diaries or newspapers or whatever—they all wrote about it. The source material is fantastic. It can enable you to see the whole structure of the city and the nature of politics and society. Then it's just in the statistical age, so you've got a lot of very good statistics that you can use to look at things like social distribution of disease, for example.

Then there's a bigger question, which is that Hamburg, of course, was the second city in Germany. It was a major seaport, one of the biggest in the world. It was an autonomous city-state within the German Empire, and it ran its own affairs. It was run by merchants, who suppressed the news of the arrival of the disease from Russia, because they thought that quarantines would be imposed and that would damage trade.

I think we can see some parallels there in the present day. The coronavirus began in China, and initially China's authorities tried to suppress the news. When it got out and they couldn't contain it anymore, then they changed their course. You can look at the way in which society interacts with epidemic diseases and you can see certain similarities across the centuries.

Do you see differences across the centuries, too? Do you think people have gotten smarter about these things, or is human nature just what it is?

There are differences. First of all, medical science has got a lot better at identifying disease and a lot better at developing preventive measures. We are confidently expecting, in eighteen months or so, a vaccine for the coronavirus. Well, in the nineteenth century and before, medical science had very little idea of what caused disease, and for a very long time it was thought, for example, that cholera was caused by a miasma or a kind of invisible gas, rising from the ground and poisoning people.

It was only the development of germ theory by Pasteur and Koch, in the late nineteenth century, that made people realize that it was spread by a bacillus. Because of the development of the microscope, you could see these different organisms. It's different from a virus, and in some ways you combat it by acid and disinfection, but, in particular, by clean water. Cholera is carried in water, and so if you can get clean water, filtered water, purified water, then people can use that and will not get infected. Also, hygienic measures are somewhat similar to today. Again, washing your hands, particularly after you go to the bathroom, was a very big way of preventing the transmission of cholera, because it's a disease of the digestive tract.

One difference is that, in the nineteenth century, people had all kinds of theories about how diseases spread, but it's only in our own time that the science has become sophisticated and precise enough to pin it down and to develop, in an astonishingly short time, a preventive measure. There was no known cure for cholera or bubonic plague or any major disease, really, for a very, very long time, not really till the twentieth century. The second major difference is very striking. It's what some have called the medicalization of society. If you look at cholera in the nineteenth century, whether it's in Britain in 1832 or in Naples in 1884 or in many other countries when it arrived, the authorities tried to impose quarantines, isolation, and, later on in the nineteenth century, disinfection and so on. There were riots because people objected to the state interfering this way. Now we're clamoring for preventive measures, so we're clamoring for the state to intervene to try and control the disease. We accept medical science in a way that it was not accepted at a popular level in

the nineteenth century. I think that's very good, that we do now listen to the medics more than people did in the nineteenth century. Then, of course, in the nineteenth century, medicine, as I said, was not very effective at killing disease, and there was a lot of confusion about what caused it.

What about the ways in which pandemics have tended to impact politics and political structures? Do you think that there are common themes there?

There most certainly are, yes. On political structures, epidemics do undermine the legitimacy of governance and administration if it does too little to deal with a disease, or if it tries to suppress it in particular. I think inevitably it causes a crisis in government. A large part of that is economic. Major epidemics bring economies to a halt, and you can see that. I already mentioned the Black Death. If you look at cholera, particularly in Hamburg in 1892, essentially, because the merchant administration of the city tried to suppress the disease and suppress news of the disease, and failed to deal with it adequately, the government in Berlin just sent in Robert Koch, the bacteriologist, with a team, and they essentially took over the administration of the city. I think you can see that that led to really quite major changes in the way the city was run after that. It can cause a major crisis. Of course, in terms of the economy, it led to huge deficits in government revenues, and also caused severe damage to trade for several months before it recovered.

What about governments trying to use crises to accomplish their own ends, or political leaders trying to do so? Is that something that you've seen or noticed throughout history?

Well, it's interesting. When cholera reached Prussia, in the eighteen-thirties, I came across in the archives a wonderful notice printed by the Prussian state, where it basically told people that what you had to do is trust in the authorities and obey what the authorities say. You're not supposed to question government measures, and then trust in God. I think also there's a major difference in terms of religion. I mean, Europe, at any rate, right up until the late nineteenth century, is a religious society, so people reacted by praying, not really doing any good in the short term.

Governments using disease, well, it's more actually popular reactions to disease, popular protest. There's a very good example very recently in Haiti, where cholera broke out in this series of disasters just a few years ago, an earthquake, a hurricane, and then cholera. The state was extremely weak, and people blamed cholera on the Nepalese United Nations troops who'd arrived there, and blamed them quite correctly. There were riots against the United Nations troops and, of course, protests against the government. I think it's less common for governments to use epidemics for their own purposes. They're reacting all the time, rather than acting.

It's interesting that you have all these governments around the world right now that people have termed authoritarian or autocratic or autocratic-leaning. Putting aside China for a minute and just looking at the U.K. and the United States, with leaders who at least have impulses of that sort, they nevertheless seem entirely reactive rather than proactive in the measures they're taking.

There are interesting differences in the way these various countries have dealt with this. I think the U.K.'s response is very much in the British tradition of volunteerism, liberalism, the laissez-faire state. Britain has been much slower to introduce major regulation and major intervention by the state. It's tended more, up to now, to rely on voluntary action by

people.

If you happen to look at states with a much stronger state presence in society in Continental Europe, like France and Italy or Spain, there's much more enforcement of government measures—isolation enforced by the police, for example. I think that's a major difference in the traditions and then the political culture of different societies.

When you were studying twentieth-century history and especially twentieth-century fascism and authoritarianism, were there examples of big health outbreaks, and how were those dealt with?

No, sorry. I don't think there were, no.

That's an acceptable answer.

Maybe they were lucky. I don't know. I'm not sure that, in the end, there are big differences between authoritarian and liberal states or democratic states in the way they react to a major epidemic. It demands very major government intervention, whatever kind of government or whatever kind of state you have, whatever kind of political party is in power. In a way, it's the epidemic that's calling the shots. In Britain, there's been massive public pressure for government to intervene in a more authoritarian way in society, in shaping public reactions and shaping public behavior. In the end, it may be easier for a regime like China to impose regulations and restrictions. Then if you look at some of the other societies that have been relatively successful in combating coronavirus—take South Korea. That is a democratic state, and yet that's been successful, too.

You were talking about the differences between the U.K. and the U.S., which certainly have manifested themselves early on, but it's very possible that, in a month's time, everyone will be trying to be doing the same thing, putting the same Band-Aids on the same overwhelming problem.

Well, that does depend. When you get to a later stage of the epidemic, it does become very important what kind of health-care system you have. The National Health Service in the U.K. will be under tremendous strain, but I think it's probably better equipped to cope than the health service in the U.S., such as it is.

To return to Hamburg for a minute, can you talk more about how things changed once they finally came out of this cholera epidemic? I know your book goes to about 1910, but what by the end had you seen change, and how was society different?

I think Hamburg was very unusual in imperial Germany, because it was regarded as kind of an English city. It was very Anglophile. That's one of the things that characterized that city, that it had this very laissez-faire attitude toward administration, toward society and politics, and then that changed. It became more what you might call Prussian. It became more top-down, more authoritarian in the way they organized things.

Also, there's a great loss of legitimacy by the city fathers. That was reflected in the growth of popularity of the Socialists in Hamburg, the Social Democrats. The city administration in some ways became less liberal, and revised the voting rights to take voting rights away from the working classes to protect its own rule. They got more integrated into imperial Germany. I think it became more German, if you like, and then that had a lot of

implications. I think it's difficult to connect that with the rise of National Socialism, which is relatively weak in Hamburg in electoral terms in the nineteen-twenties.

So to summarize some of what you are saying, you see more continuities than differences in how states respond, even though we're in a new age with modern medicine and modern communication and we can see what's going on so much more quickly and so on. Is that accurate?

Yeah, it is accurate. I mean, as I said, certainly common features emerge. For example, in terms of information being made available, again, there have been a lot of complaints in the U.K. that not enough information has been made available to people. That's fairly standard across epidemics in history.

In terms of more differences, you can also look at the effects of the more intensive and faster communication across the globe. Trade has always played a role in spreading disease, and the incredible rapidity with which coronavirus has spread across the world is, in part, a reflection of the way in which we're all bound together, in particular by air travel. You can look back then to the nineteenth century and see how the spread of the disease was sped up by the introduction of railways. Before that, you've got sailing ships. They move relatively slowly, but you can see how the bubonic plague was spread across the Mediterranean by shipping and merchants and so on.

Richard, thank you for this. I hear you're coughing now, so I hope you stay inside.

I need a glass of water. It's talking too much, Isaac.

'It's really tragic': why are coalminers still dying from black lung disease?

The Guardian, January 24, 2020, by Michael Sainato

Black lung disease is preventable – but high rates have emerged in recent years as workers inhale toxic dust, prompting calls for better protections

“When you breathe in silica, it coats your lungs immediately,” said Bethel Brock, a 79-year-old retired coalminer in Wise, Virginia, who worked in mines for 32 years.

Brock has complicated black lung disease caused by inhalation of coal dust.

A report last year conducted by the AFL-CIO, the largest federation of unions in the US, *Death on the Job: The Toll of Neglect*, estimated that 95,000 workers die from occupational diseases in the US every year

Coalmining has historically been a leading job occupation where workers contract and suffer from respiratory diseases due to the dust they're exposed to on the job.

Though reported black lung cases hit an all-time low at the end of the 20th century, high rates of black lung disease have emerged in recent years in coalminers and other industries.

Silicosis is an untreatable lung disease caused by the inhalation of silica dust that progressively scars the lungs. About 100 workers die every year in the US due to the disease.

Brock said that miners in Appalachia are being exposed to silica dust more often because the remaining coal is deeper in the earth, thus requiring more cutting to get to it, and unionized mines that once served to protect workers from excessive dust exposure no longer exist.

“The mines now have all this rock to cut. They have to take out a foot of rock to get clearance to walk and mine, and that brings on the problem of black lung worse because silica is a lot worse than coal dust. Your lungs can't deal with it,” he said. “With black lung, even with supplemental oxygen, you suffocate to death. It destroys the air sacs and inhibits oxygen to your blood supply. The first thing that goes is your legs, that's my weakness now.”

Silica dust has been cited as a contributor to recent rises in black lung disease, particularly in central Appalachia, despite initial progress in nearly eradicating the disease among miners. In 2018, black lung disease in miners hit a 25-year high. In Appalachia, cases of black lung rose to levels unseen since the 1970s, when modern coal dust regulations were implemented.

For coalminers, the silica dust they're exposed to while mining is 20 times more toxic than the dust from coal, and new, mechanical methods of mining coal are probably exposing miners to greater amounts of silica dust in the process.

“It's really tragic we are seeing cases of silicosis in the 21st century and cases of a disease that are entirely preventable,” said Dr Robert Cohen, a professor of medicine and director of occupational lung disease at Northwestern University.

He said anytime workers are drilling, mining or carving stone or rock, respirable crystalline silica, a very toxic dust, is likely being liberated in the process. Without protection and proper dust controls, workers inhale this toxic dust.

“The dust is never removed from the lungs, so even after people are exposed it can continue to cause problems. It’s unfortunate this disease can progress without any further exposure,” Cohen added.

The United Mine Workers of America has called on the Mining Safety and Health Administration to enact stricter standards to regulate respirable silica dust in the wake of resurging black lung cases. A spokesperson for the Mining Safety and Health Administration said the agency is currently reviewing public comments before proceeding on any changes to regulations.

IS OWNING A DOG GOOD FOR YOUR HEALTH?

Adapted from *The Guardian Weekly*, September 2018

Dogs really are our best friends, according to a new Swedish study that says canine ownership could reduce heart disease. A study of 3.4 million people between the ages of 40 and 80 found that having a dog was associated with a 23 per cent reduction in death from heart disease and a 20 per cent lower risk of dying from any cause over the 12 years of the study. Previous studies have suggested dogs relieve social isolation and depression – both linked to an increased risk of heart disease and early death.

Dog owners show better responses to stress. Their blood pressure and pulse rates don't rise and they have higher levels of physical activity and slightly lower cholesterol levels. The American Heart Association was sufficiently swayed by a review of dozens of studies to release a statement in 2013 saying that owning a dog was probably associated with a reduced risk of heart disease.

Their reluctance to more strongly endorse dog ownership is because most studies are what is called observational – researchers note an association, but can't prove causation. This means that other factors might explain why dog owners are healthier than, say, goldfish owners – for example, perhaps only people who are fit in the first place buy pets that need daily walks.

Doctor Fall, an epidemiologist and the lead author of this latest study, says they tried their best to allow for any differences in education, existing ill-health and lifestyles between those with and without dogs. The study found the biggest positive impact of having a dog was on people living alone. It seems that a dog can be a substitute for living with other people in terms of reducing the risk of dying. Dogs encourage you to walk, they provide social support and they make life more meaningful. If you have a dog, you interact more with other people. If you do get ill and go into hospital and you have a dog, there's a huge motivation to try to get back home.

Of course, getting a dog and watching it from your sofa while you eat fatty food is not going to reduce your risk of heart disease. And a toy dog may look cute, but won't have any effect either. Doctor Fall's study showed the most health benefits came from having retrievers or pointers. Until her German shorthaired pointer died last year, she would run 10 km with her most days. "In Sweden, we have one of the lowest rates of dog ownership in Europe," says Fall, who has recently got a new puppy. "Maybe this will increase the acceptance that dogs are important to people."

MANDATORY VACCINATION: DOES IT WORK IN EUROPE?

Adapted from the Irish Medical Journal, 2017

Compulsory vaccination was first introduced in the UK – where no vaccines are currently mandated – through the 1853 Vaccination Act. The law required that all children ‘whose health permits’ be vaccinated against smallpox, and obliged physicians to certify that vaccination had taken place. Parents who refused vaccination could be fined £1. Today in Europe, the picture is mixed. A 2010 study of 27 EU countries (plus Iceland and Norway) found that 15 had no mandatory vaccines. In the meantime, Italy has added 10 vaccines to its list of compulsory vaccines; France and Romania are preparing new laws that would penalise parents of unvaccinated children; and Finland will introduce legislation in March 2018 that requires health and social care providers to ensure staff are immunised against measles, varicella and influenza. The diversity of measures taken suggests no proven strategy exists that can be universally applied. In the US vaccine mandates have evolved to include a variety of incentives and penalties. In some US states, children cannot access public schools without being vaccinated; in Australia, compliance with childhood immunisation schedules has been linked to pre-school admission.

Experts have also argued that while mandatory vaccination might fix a short-term problem, it is not a long-term solution. Better organisation of health systems and strong communication strategies may prove more effective. Mandatory vaccinations for both healthcare workers and the public can obtain a rapid improvement in immunisation rates, but in the end, have high costs, especially in terms of litigation. There is no ‘one-size fits all’ approach to improving vaccine coverage. Some countries with mandates, such as Poland, have high vaccination rates; others, such as Finland, achieve similar results without mandates. The real power of a mandate is not in coercing reluctant parents to vaccinate children against their will; it is in sending a signal to the wider population that vaccination is a vital part of public health. In this sense, the momentum generated by the debate on mandatory vaccination may have some positive effect. The risk, however, is that it will spark an anti-vaccine backlash equal to – or greater than – this positive signal. This risk would be amplified in cases where vaccine supply or access to vaccination services is not guaranteed, as has been the case in Romania.

A more promising move would be to invest in understanding the behavioural drivers of vaccine acceptance. Including this issue in the forthcoming EU Action Plan on Vaccination, due to be launched in 2018, would be a welcome initiative. In the meantime, it is essential that legislative changes be closely monitored in Italy, Romania, France and Finland – along with policy measures in Germany and other countries where mandates are not in place.

MONSANTO ORDERED TO PAY \$300M AS JURY RULES WEEDKILLER CAUSED MAN'S CANCER

Adapted from *The Guardian*, August 2018

Monsanto suffered a major blow with a jury ruling that the company was liable for a terminally ill man's cancer, awarding him \$300m in damages.

Dewayne Johnson, a 46-year-old former grounds keeper, won a huge victory in the landmark case on Friday, with the jury determining that Monsanto's Roundup weed killer caused his cancer and that the corporation failed to warn him of the health hazards from exposure. The jury further found that Monsanto "acted with malice or oppression".

Johnson's lawyers argued over the course of a month-long trial in San Francisco that Monsanto had "fought science" for years and targeted academics who spoke up about possible health risks of the herbicide product. Johnson was the first person to take the agrochemical corporation to trial over allegations that the chemical sold under the brand Roundup causes cancer. [...]

"We were finally able to show the jury the secret, internal Monsanto documents proving that Monsanto has known for decades that [...] Roundup could cause cancer," Johnson's lawyer said in a statement. The verdict, he added, sent a "message to Monsanto that its years of deception regarding Roundup is over and that they should put consumer safety first over profits".

Johnson said that the jury's verdict is far bigger than his lawsuit. He said he hopes the case bolsters the thousands of similar lawsuits pending against the company and brings national attention to the issue.

Johnson's case was particularly significant because a judge allowed his team to present scientific arguments. The dispute centered on glyphosate, which is the world's most widely used herbicide. The verdict came a month after a federal judge ruled that cancer survivors or relatives of the deceased could bring similar claims forward in another trial.

During the lengthy trial, the plaintiff's attorneys brought forward internal emails from Monsanto executives that they said demonstrated how the corporation repeatedly ignored experts' warnings, sought favorable scientific analyses and helped to "ghostwrite" research that encouraged continued usage.

Monsanto has long argued that Roundup is safe and not linked to cancer and presented studies during trial that countered the research and testimony submitted by Johnson's team. The herbicide is registered in 130 countries and approved for use on more than 100 crops, but in 2015, the World Health Organization's international agency for research on cancer (IARC) classified glyphosate as "probably carcinogenic to humans", triggering a wave of legal and legislative challenges. [...]

Johnson, 46, is a father of three who worked as a groundskeeper and pest manager for the school district in Benicia, a suburb just north of San Francisco. That position began in 2012, and it involved him spraying herbicide to control weeds on school grounds, sometimes for several hours a day.

Vocabulary of the articles :

credence : croyance / crédit
to weigh over : peser sur
pressing : urgent
awareness : conscience / connaissance
to strengthen : renforcer
neediness : besoin / manque
to address : s'occuper de / répondre à
neither... nor... : ni... ni...
outbreak : épidémie
cradle : berceau
reliable : digne de confiance / fiable
to achieve : accomplir / réaliser
whipper : fouetteur / jeune effronté
worrisome : inquiétant / préoccupant
counterpart : homologue
to uproot : déraciner
trade : commerce
host nation : pays d'accueil
stringent : strict / rigoureux
to be paramount : être primordial / de première importance
globalized : mondialisé
wounded : blessé
burning issue : question brûlante / sujet à controverse
selfless : altruiste / désintéressé
partnership : partenariat
to disregard : ignorer / mépriser / ne pas tenir compte de
sustainable : durable
to enhance : améliorer
unpredictable : imprévisible
pointedly : de manière appuyée / ostensiblement
to facilitate : faciliter / animer
thereby : ainsi
self-reliance : autonomie / indépendance
to grasp : saisir
toward : envers
component : composant
commitment : engagement / investissement
to thwart : déjouer / contrarier
to harvest : récolter
practitioner : praticien
to draw blood : faire une prise de sang
to shroud : envelopper / dissimuler
cloak : cape
to force feed : nourrir de force / gaver
unwillingly : à contrecœur / contre son gré
lung : poumon
kidney : rein
unfathomable : insondable / incompréhensible / énigmatique
callous : dur / insensible / sans cœur / cruel
bruise : bleu

stitches : points de suture
throat : gorge
device : appareil
to end up : finir
fees : prix / frais / honoraires
to boast : se vanter / fanfaronner
to understate : minimiser (l'importance de)
donation : don
to source : acheter / se procurer
to dismantle : démanteler
to wait for / to await : attendre
to purport : prétendre faire
to gather steam : décoller / prendre son envol
to double-down : doubler
to sacrifice : sacrifier
mistreatment : mauvais traitement
undercover : infiltré / secret / double
footage : séquence / enregistrement
unlawful : illégal
to screen for : dépister
stroke : attaque
adverse : néfatif / défavorable / contraire
underserved : démunis
innately : par nature / en soi
to figure out : résoudre / comprendre
to overlook : oublier / négliger / surplomber / dominer
to set apart : distinguer / différencier
to encroach on : empiéter sur / envahir / gagner du terrain
breakdown : panne / dégradation / dépression
likelihood : probabilité
plague : peste / épidémie / fléau
remote : isolé / perdu / retiré / reculé
to wander : flâner / déambuler / errer
tremendous : énorme / formidable
to flail : s'agiter dans tous les sens / se débattre
to ease up on : lâcher du lest / être moins sévère avec
to move forward : aller de l'avant
enduring : durable / tenace
scholarship : bourse
leanings : tendances / inclinations
to call the shots : mener le jeu / faire la loi / faire la pluie et le beau temps
takeaway : amorce
shortage : pénurie
to work the fields : travailler la terre / dans les champs
railway : chemin de fer
overcrowding : surpeuplement
to occur : se produire / avoir lieu
at any rate : en tout cas
enforcement : application / exécution / mise en vigueur
top-down : descendant
preventable : évitable
an all-time low : historiquement au plus bas

dust : poussière
to scar : marquer / laisser une cicatrice
unionized : syndiqué
occupational disease : maladie professionnelle
to remove : enlever / ôter
exposure : exposition
spokesperson : porte-parole
to sway : influencer
to endorse : soutenir / appuyer / promouvoir
goldfish : poisson rouge
compulsory : obligatoire
incentive : avantage / motivation / prime / incitation
childhood : enfance
to spark : déclencher
forthcoming: prochain / à venir / communicatif / ouvert
liable for : responsable (légalement) de
landmark (adj) : marquant / qui fait date / majeur
hazard : danger
to bolster : soutenir / renforcer / appuyer
lawsuit : procès / action en justice
pending: en attente / imminent / en attendant
dispute : litige / conflit
to trigger : déclencher
suburb : banlieue