

## A REVIEW OF MORTALITY ANALYSES AND LIFE SAFETY IN AN INDIAN CONTEXT

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**Abstract.** This discussion paper on death presents an analysis of the causes of irretrievable mortality in the Indian context. It traces the local-to-global connection by depicting the current scenario and future perspectives. It deals with various aspects of death to provide a broader overview and outlines the various actions required to improve it. Analysis of the mortality data illustrates the inadequacy of present efforts to address the problem of death due to avoidable causes. A better understanding of the relationship between a vast number of unnatural deaths and the personal safety and healthcare precautions as they are practiced will lead us to conclude that different activities performed with a better presence of mind can extend the span of human existence in general. Analyses through intensive scientific research and careful examination through cross-pollination of inspiring ideas, proper perspectives, and a positive orientation to imagine a better future will enable people to fulfill what they want and need in their diverse contexts. The retrospective analysis of the data indicates that the mortality rate can be reduced by simple safety measures while traveling through the changing political landscape and achieving long-term sustainable development. Living a healthy lifestyle and following standard operating procedures during a pandemic like COVID-19 could make a difference in the lives of millions as health and safety remain primary concerns.

**Keywords:** Death data; mortality rate; preventable deaths; precautions for survival; death education; safety protocols

### 1. Introduction

The extraordinary scientific progress, coupled with the remarkable skill and dedication of medical professionals, has increased the average lifespan of human beings in the last couple of decades<sup>1</sup>. Improved access to quality education, better healthcare services, sanitation, pure drinking water, improvements in food production, and physical infrastructure have prolonged the average span of life across the globe. Death is such an area of strange silence that everybody knows, but is frightened to talk about it, and from a broader perspective, it has metaphysical, religious, and economic implications. At the individual level, it creates a 'strong feeling of sadness and leaves behind an emptiness in the intellectual world. At the collective

level, it can make millions think, and countries perish. The connection is like traveling through time and is much more of a dotted line than a straight line, delinking generations or shared customs in our journey of real-life experience. Death comes anytime and anywhere and continues to frighten humankind, reminding us of the transient nature of life in the civilized world. The human body undergoes birth, growth, change, evolution, death, and destruction stages of transformation, and death is a universal experience that all will eventually face. The human life cycle involves stages like a fertilized egg, fetus, baby, child, teenager, adult, older person, and a corpse. According to the current classification, the six new stages in life include childhood, adolescence, odyssey, adulthood, active retirement, and old age. The last phase of life is a downward process that involves declining of the physical and mental energies and inherent mind power, eventually terminating in the external silence and immobility of the body. Basic body changes are leading to all deaths, and the physiology of dying involves a series of irreversible events leading to cell death. The three distinct types of cell death identified in biology include apoptosis, necrosis, and autolysis. We can identify the clinical/functional end with the cessation of heartbeat and respiration, the two necessary criteria of sustained life. Whole-brain death is the complete and irreversible cessation of all functions of the brain. The three types of brain death include cortical or cerebral death, brain stem death, and whole-brain death. A persistent vegetative state is a condition in which there is a death of the higher brain, and the patient is unresponsive to psychological and physical stimuli. Coma is a state of unconsciousness, and patients may come out of it while those who are brain dead will never wake up again. Human death is the irreversible cessation of lower and higher brain functioning, including the brain stem. Death results in the termination of all physiological functions like breathing, heartbeat, digestion, and temperature control that sustain us. Legal death is an official recognition that a person has died.

Death comes to all, and there is no evidence-based medicine against death despite the enormous changes in human existence from age to age. The mind, matter, and life force constitute a human being, and death results in the cessation of one individual existence within a particular lifespan. A life-giving, sustaining force that resides in every human being enlivens the body and gives it different life-defining characteristics. Our physical body consists of multiple systems (cardiovascular, endocrine, gastrointestinal, nervous, reproductive, and respiratory) in a complex network that is programmed to function in specific ways. All life has value, from conception to natural death, and the complexity of human nature, emotions, experiences, relationships, and expressions vary from one individual to another. Anticipated death from prolonged illness can lead to physical and emotional exhaustion from caring for the family member. Unexpected death from a heart attack or accident leaves the families shocked and bereaved. Traumatic death due to suicide or homicide can lead to a complicated grief pattern. The loss of an earning family

member by premature death could have a devastating effect. Loss of life in vast numbers influences the socio-economic growth of the country, and unnatural death is an indicator of a deficiency in social and mental health. Countries could declare a cease-fire or hesitate to go to war due to a massive death toll and destruction. Additionally, the daily death of human beings begins a chain of events that disrupts the nitrogen fixation cycle and ecosystems of the terrestrial world.

Gerontology is the scientific study of the social, psychological, biological, and cognitive aspects of old age, the process of aging, and the specific problems of older people. It explores the reasons for age progression, the scientific concepts involved, and the ways to cope with the body's aging process. Geriatrics is a particular branch of medicine dealing with the health care of senior citizens. There are certain indicators or signs of impending natural death such as loss of appetite, increased sleep and excessive fatigue, changes of expression or mental confusion, social withdrawal, increased physical weakness, changes in urination, coolness in the tips of fingers and toes, labored breathing, pale skin and mottled veins, and swelling in the feet and ankles. Physicians often use these outward signs to diagnose conditions in their patients, and this information will help the relatives prepare for what is to come. Post-mortem diagnosis involves the systematic and scientific examination of the dead body to ascertain the cause of death. Cross-disciplinary journals such as the *Journal of near-death studies*, *Journal of death and dying*, *Journal of cell death*, *Journal of loss and trauma*, *Journal of clinical research and bioethics*, *Journal of medical ethics*, and *Mortality*, are among the prominent death-related global research publications. They cover different interdisciplinary topics such as life-threatening diseases, long-term disability, bereavement counseling, dynamics of suicide, aging issues, palliative treatment, death with dignity, grief therapy, death attitudes, socio-legal studies, and techniques for the prevention of unnatural deaths. There are many idioms, quotes, games, movies, and books about death and its likely consequences<sup>2)</sup>. As sure as death and taxes, a matter of life and death, a fate worse than death, a living death, and cowards die many times before- are some examples of idioms known. 'YOLO', an acronym meaning 'you only live once' has been included in the latest edition of the Oxford English Dictionary.

This report presents an integrated analysis of the leading causes of death based on limited statistical data. It discusses the necessary long-term measures to control death to reduce the total mortality rate in the country substantially. This work aims to spread social awareness among today's youth about preventable deaths in the context of the global crisis and to spread the culture of safety, focusing on the pressing issue of premature mortality. A more explicit indication is to improve confidence, coordination, and concentration in having a fulfilling and enjoyable life. The intent is to impact people to change their limited general perceptions about death and provide a different perspective to build strong bonds. This document depicts an exciting combination of the human and scientific aspects of death to draw particular

attention to this standard and unusual phenomenon. It describes the primary causes and precautions to be taken to prevent premature deaths, and it is expected to be a kind of survival manual for the general and the younger generation of readers. It outlines the specific actions required to reduce the number of preventable deaths, from an Indian perspective. The bottom line is to analyze the hard facts and figures available about death in the public domain and connect the select audiences to critical information in an exciting way<sup>3)</sup>. It is open to anyone who wishes to learn more about death and sustain their vibrant way of life. The open-source network effect helps extend the reach of content to an otherwise inaccessible target audience. Its objective is to introduce a broad global perspective about key academic and applied aspects of death to present some of the most pressing concerns that are relevant to our civil society, and the scope is limited to carrying out a comprehensive death analysis and making general recommendations to foster innovative thinking and better risk management strategies. The death of a loved one can shake people's confidence in the inner circle and the ability to absorb shock in the event of death helps us avoid severe consequences. The accurate and detailed observations/inferences of many death incidents have triggered off thought processes in many individuals to express different aspects of vital questions of dignified human existence<sup>4)</sup>.

Capital punishment or execution sentence for various capital offenses by hanging, electrocution, lethal injection, stoning, decapitation, and a firing squad is being practiced in some of the most modern constitutional democracies, even today<sup>5,6)</sup>. Killing the killers would not bring back the victims, and this practice reflects the animal instinct in human beings. The analysis of reported death sentences and executions across the world indicates an increase in the total number of deaths by capital punishment. However, the number of abolitionist countries (103) is higher than that of retentionist countries (58) in recent times<sup>7)</sup>. There is a continuous debate on whether the death penalty is a justifiable form of punishment. The inherent factors that are necessary for the evolution of human civilization are the active participation of people in the system, and critical analysis of the diverse causes of unnatural deaths. We have to look at the situation from an objective perspective, and expressing condolences to a bereaved person (friend, colleague, or a distant relative) helps both to heal. It is important to talk face to face so that the bereaved person can open up and express grief. It is about recalling the life of a person, revisiting the events in life left behind, reconfiguring our DNA, managing our concerns about life, and carrying forward their ideas or ideals to an exciting life. It is but natural that the end of a wheat plant occurs after producing many seeds for continuing harvest, and this analogy illustrates that human death is the way to live. The cessation of the psychophysical life of any one individual existence is inbuilt into the evolutionary process of creation. This process is an integral part of life (growth, development, reproduction) -death-decomposition cycle in nature. This position paper on death is an attempt to capture the unique blend of fears, insecurities, causes, effects, stabil-

ity, issues, and possible solutions for the prevention of unnatural deaths to satisfy our need to create, feel and survive in a life of progressive development. It is expected to trigger some more profound reflections, insightful debates, detailed deliberations, and strong social actions in the past-present-future contexts. The overall quality of life, self-satisfaction, and life safety come ahead of everything else from an experiential, thoughtful, and emotional point of view. Personal well-being, the progress of society, and sustainable development of the planet are the three pillars leading to peace of mind, shared prosperity, and the ability to sustain human life.

## **2. Death facts and figures**

Several studies on the cause, mechanism and effects of death on a broad scale and the study of the case history of seniors obtained from many hospitals could indicate a pattern of mortality in the country<sup>8)</sup>. A comprehensive forensic study is required to establish the cause of death as natural or unnatural or a combination of factors, using medical history evaluation, a post-mortem examination, and the analysis of the circumstances/conditions leading to death. On a time scale, the death process would include beginning, middle, and end stages involving the opening scene (initial state), crisis development (transition state), and final termination (final state). The open-source documentation is such that there are no reliable statistics on the mortality rate due to different causes. According to WHO, nearly two-thirds of all annual deaths are not registered, and the causes of death are not documented<sup>3)</sup>. Local and cultural burial or open-air burning practices in various parts of India would lead to inaccurate mortality rates. It is a matter of grave concern that reliable data is not available in some instances due to a lack of data collecting infrastructure, inadequate data or governments do not share data widely. Further, slow processes, expensive equipment/tests, and low government priority also contribute to a lack of national cause-specific mortality data, and low, medium and high data quality. There is a need for standardization of protocols for both data collection and cause of death assignment as natural, homicide, suicide, accident, and undetermined. In addition to the vital death registration systems, it is certainly necessary to carry out household surveys that help understand broad cause group mortality at the population level. Most deaths occur at home and without medical attention, and hence statistical data on nationally representative samples of all deaths based on household interviews with families is significant. World history reveals bitter wars between different nations in which millions had died. In human history, the number of deaths due to infectious diseases like tuberculosis could be more than those by wars and famines combined. Rapid outbreaks of infectious diseases such as Ebola virus disease (EVD) and Zika fever have claimed hundreds of lives in several countries and lost millions of dollars. An integrated disease surveillance program (ISSP), set up by the ministry of health and family welfare in line with the WHO, has to be strengthened to obtain the bulk of the reports on outbreaks of disease across India.

This data collection is possible through active collaborations among the stakeholders and collated data sources for obtaining insights for the public good to recognize disease outbreaks early and immediate delivery of health care to avoid following emergencies. On average, there are 56 million deaths that occur per year, and 1.8 humans die every second. India contributes to 16% of the world's death. The data on the mortality rate by race, age, education, gender, state, seasons, causes, wealth index, and the manner of death show wide variations. In death investigations, determining the mode of death, such as natural, homicidal, accidental, and suicidal, plays a significant role in addition to the cause and mechanism of mortality. Further investigation would be able to accelerate the quest for answers to the most intriguing questions about death.

### **3. Causes of death and life safety**

Leading causes of death worldwide during the past decade include cardiovascular diseases (29%), infectious diseases (26%), respiratory and digestive diseases (10%), maternal and perinatal conditions (5%), cancers (13%), and injuries (9%). Other causes of death include homicide, suicide, septicemia, diabetes, Alzheimer's disease, Parkinson's disease, hypertension, neoplasms, liver disease, obesity, severe mental illness (SMI), some psychiatric medications, human immunodeficiency virus (HIV) disease, occupational hazards, and unintentional injury. The mechanism of death involves a physical abnormality produced by a cause of death that is incompatible with life, such as asphyxia, loss of blood, and heart failure. The specific physiological changes that lead to the cessation of life include massive blood loss, multiple organ failure, trauma to the brain, and pulmonary arrest. The cost of such a death involves the cost of the funeral, medical bills, tax, and other financial obligations. It would affect the family's share of future earnings, the standard of living, emotional grief, loss of counselling, guidance, and education. With death, people grieve, rebuild their lives around the new normal, and change the dynamics of a family and relationships. This change extends to even the world and adjusting to a fresh normal to establish new patterns.

The three most common causes of premature death include ischemic heart disease, stroke, and cancer. It is possible to avoid these deaths through proper safety precautions, cooperative conservation, research and extension efforts, and strong political support. Awareness programs, the commitment to an eco-friendly lifestyle, pollution control, sustainable development, eco-friendly agricultural practices, a revival of water bodies, afforestation, and planet-friendly activities have to become a priority and a prominent feature in empowering youth towards a brighter tomorrow. Other preventable causes of death include excessive heat exposure, choking risks, falls, injuries, drowning, burns, toxins, stampedes, and diseases (digestive, respiratory, cardiovascular, and diarrhea). Besides septicemia, kidney failure, liver damage, accidental poisoning, firearms, building collapse, industrial mishaps,



natural catastrophes, violence and sexual assault, medical errors and negligence, deficiency of service, selfie-related deaths, capital punishment, and other ill-defined conditions, also contribute to the overall mortality rate. Further, water scarcity, waterborne diseases, and air pollution also lead to considerable loss of lives. Worldwide, two billion people do not have access to the minimum level of potable water. We have to make sure that the residents get pure drinking water from the water supply department. Tackling the enormity of India's preventable death problem is important, and it is crucial to develop methods to prolong life or prevent unnatural deaths as well as proper handling of the vicarious liability situation by consumer courts. The global human population has exhibited steady growth for centuries. It is projected to reach 9.7 billion by 2050<sup>9)</sup>. An ever-increasing human population combined with development activities has resulted in a significant number of fatalities in a complex country like India – about 7.35 deaths per 1000 populations.

The most common causes of unnatural death include accidental poisoning, motor vehicle accidents, falls, suicide, homicide, stampede, drowning, medical and surgical complications, and accidental exposure to fire. It is estimated that smoke inhalation injuries are the leading cause of death for the victims of indoor fires. The healthy oxygen percentage available is 21%, and reduced oxygen of 19.5% is considered to be an oxygen-deficient atmosphere. When oxygen levels in the air reach 17%, a person experiences impaired judgment and coordination, and at the 6% level, it could lead to respiratory arrest, cardiac arrest, and death. According to the WHO, an estimated 2.65 lakh deaths every year are caused by burns<sup>10)</sup>. Nearly 1.95 lakh deaths every year in India occur due to burn injuries, accounting for nearly three-fourths of the annual burn deaths worldwide (Gowri, Vijaya, Powar et al. 2012). This fact makes it a significant public health issue. It creates a severe challenge that requires a healthy debate, social awareness campaign, the use of life-saving techniques, and the development of a spirit of a scientific attitude. The number of premature renal failure deaths increased to 136,000 in 2015, which is more than double the number of deaths due to HIV/AIDS<sup>11)</sup>. A bridge may collapse, killing hundreds because of incompetent civil engineers, and several patients may die because of an incompetent doctor.

A large number of deaths in an earthquake, tsunami, or railway/air accidents are critical elements in driving up social pressure, impacting individuals, communities, societies, and organizations. The number of fatalities due to flood and drought related incidents will have a countrywide effect. In natural calamities, the services of a doctor are crucial for providing immediate treatment to save the lives of thousands of people. Disaster management, interlinking of rivers, increasing the river bed stretch, and formulation of a comprehensive policy would also help. We can prevent or reduce the entire effect of natural catastrophes, including cyclones, droughts, epidemics, earthquakes, extreme temperatures, floods, hailstorms, volcanoes, and wildfires from becoming human tragedies. In recent times, it is possible

to use mobile and other communication technologies that inform and empower citizens, establish early warning systems for famine, and environmental management, and distribute packaged food products. Governments and NGOs should take concrete steps to avert natural disasters.

There is a substantial increase in the death of innocent people across the world by suicide attacks, terrorism beyond territories, radical extremism, religious fundamentalism, and unresolved civil conflicts amongst nations. A proactive strategy is to collectively respond to the fight against terrorism in the international community and isolate those who sponsor and support terrorism through the process of internalizing norms, social expectations, and exercising strict trade sanctions. We should develop a sophisticated mechanism to tackle such fundamental forces and strengthen permanent intelligence cover and security apparatus in each country over the next few years. It is also essential to have control over manufacturing improvised explosive devices (IEDs), arms, and ammunition, dismantling terror links in affected areas, stringent quality control checks, discouraging supporters of extremist groups, and the use of sophisticated communication equipment. We have to realize the necessity of effective mediation for settling disputes between countries involved in conflicts, which will have a significant positive impact on the economy.

India has the third-largest road network in the world, and one death every minute in road traffic accidents is a grave concern leading to a significant total annual economic loss. Road accidents are the leading causes of unnatural deaths in India, and nearly 1.4 lakh people are killed per year<sup>12</sup>). We are more likely to die in a motor vehicle accident than in a terrorist attack. It is essential to instill a sense of road safety through a rigorous and disciplined safety education program, as a part of corporate social responsibility (CSR). We must know the importance of road safety rules and practice road etiquette in our lives to prevent the loss of thousands of lives in traffic accidents each year in our country. The availability of ambulances, fire brigades, wearing a seatbelt/helmet, following lane discipline, correct safety protocols, road signs, and signals would help prevent inevitable fatal accidents. ECG and other modern equipment in an ambulance can reduce deaths due to heart attacks. The incidents related to safety defects in vehicles such as airbag defects, fuel leakages, and other technical issues should be reduced by having a high vehicle safety rating, as there is an increase in the number of major recalls in the recent past. The death due to accidents every year could be translated into transformed lives if we offer immediate support for the organ donation process. For instance, we can use corneas harvested within six hours of death for transplants at the nearby hospital. Moreover, dead bodies are required for medical research and education. This selfless and noble act of saving a life by organ donation makes us feel good about ourselves to live beyond death. Immediate action in the event of an accident, regular maintenance of roads and vehicles, accident insurance, and road safety awareness among the general public



are essential to reduce the number of deaths due to transport accidents. Following the traffic safety rules, including not driving under the influence of alcohol can prevent irreversible loss of life to a great extent. We can prevent the loss of lives due to 'driving under the influence' by implementing traffic safety rules and actively promoting awareness of the adverse impacts of drinking and driving. Texting, surfing the internet or talking on the phone while driving can be a lethal combination. The research effort is currently focused on developing autonomous vehicles with multiple sensors to detect objects coming from all directions and take the car to safety.

More than 53% of total deaths every year are due to non-communicable diseases (NCDs) such as cancer, heart disorders, and diabetes<sup>13</sup>. Non-communicable conditions account for nearly two-thirds of deaths globally. The number of premature deaths attributable to NCDs can be reduced to one-third by health promotion campaigns, enhanced monitoring mechanisms, reduction in alcohol and tobacco consumption, strengthening the primary health care system, and facilitating fundamental level NCD care. The severe sepsis mortality ratio ranges from 28-50% in India and is the primary cause of death by infection worldwide. Sepsis develops and finally ends up as whole-body inflammation, multi-organ failure, and death. It is essential to have the national center for death control (NCDC) develop a comprehensive national action plan to promote research and development efforts on the anti-microbial resistance (AMR) crisis for the sake of future generations. The specific policies must foster a robust research and development (R and D) ecosystem that enables the manufacture of indigenous life-saving medical devices and promotes effective public-private partnerships (PPPs). The exploration of emotional life connections between human beings by long-term observation with death research will transform our understanding of death and related components. The implication of mortality research with properly documented result analyses can shed light on society and help us understand the fundamental dynamics in supporting human life on a massive scale.

Fewer than 300 species of snakes out of the 2700 different breeds of snakes in the world may be fatal to humans (Swaroop & Grab 1954). Snakebites kill nearly 46,000 Indians per year, and it remains an underestimated cause of accidental death<sup>14</sup>. India had the greatest number of preventable deaths in 2019 due to snakebites<sup>15</sup>. There are more than 200 species of snakes in India, and only 52 are poisonous. Snake venom is a combination of enzymes and non-enzymatic polypeptides, and they generally exhibit neurotoxicity, hemotoxicity, cardiotoxicity, and myotoxicity. Accurate management involves the use of antislake venom (ASM) in proper doses by a qualified medical specialist after clinical examination, laboratory investigations, and assessing the severity of envenomation. Wearing protective clothing, gloves, and high boots when walking through wild areas, avoiding making sudden movements in the direction of the snake, and using a flashlight while walking

at night are some of the safety precautions that will help prevent snakebites. The number of people in India with weak osteoporotic bones increased to 50 million in 2015, indicating a national deficit in vitamin D. Further research is required on the vital role of vitamin D in determining our quality of life and death, a public health crisis. A suitable drug with the correct dosage can save a life while abuse can endanger one's life. Industrial accidents claim one million human lives every year as per ILO estimate, and India has the world's highest fatal accident rate<sup>16</sup>. Proper personal protective equipment and the safety of the machines, processes, products, or operations as a part of industrial security are essential to avoid accidents and for the welfare of the country.

Millions are dying annually of treatable diseases due to complications from surgical procedures done by quacks lacking the requisite skills or qualifications. Dangerous nuclear wars in the future could bring a significant number of fatalities and destruction around the world. We should work toward a world without nuclear weapons to avoid nuclear warfare, realizing the necessity of peace and the welfare of humanity. The United Nations has a great responsibility in maintaining peace and harmony in the world. It is an intergovernmental organization to promote international cooperation in finding suitable solutions to multiple problems related to social, political, cultural, economic, and humanitarian aspects. The promotion of nations to follow the constructive path ensures they rise above a narrow, selfish financial interest to bring global peace and prosperity. Inadequate infrastructure and facilities, reduced maintenance, and a shortage of trained personnel need serious consideration and drastic action to create a trained, reliable, responsive, and motivated public force. We have to learn to live and let live, all within a broad framework of overall safety, and commitment to ideas and ideals that will bring individual and collective success eventually.

In India, 68,000 AIDS-related deaths were reported in 2015, and 2.1 million people are living with HIV. Work towards improving the survival rate and maintaining the quality of life of people living with HIV is a serious concern. National AIDS control programs, prevention, care and treatment of AIDs, regular screening tests, sexually transmitted infection (STI) management, and behavior change through education at the individual and population level help reduce transmission of HIV. Further, protected sex and using HIV-negative blood for transfusion, and the use of sterilized needles can control the spread of the disease to a large extent. An integrated and comprehensive prevention and monitoring strategy, the development of effective vaccines for infectious diseases, and specific anti-viral or anti-bacterial therapy for everyday personal and social health problems would increase longevity significantly.

Life expectancy in India is 68.45, while the worldwide global average is 71 years. It is considered one of the best indicators of the overall health status of

a country's population. Over the years, there has been a rise in life expectancy because of improvements in hygiene and nutrition and the diagnostic and healing tools offered by medical science<sup>17</sup>. It will likely continue to increase in the next decades, and it must be lower than the maximum lifespan. A high standard of living, high-quality healthcare, and a low-fat diet contributes to high life expectancy. The current death scenario in India depending on different causes is as follows; cataract and visual impairment (88%), arthritis and locomotion problems (40%), cardiovascular disease and hypertension (18%), neurological disorders (18%) respiratory problems (16%), gastrointestinal diseases (9%) psychiatric issues (9%) and loss of hearing (8%). Changes in the medical community's attitude towards geriatric treatment, educational, medical, nutritional support, care, and rehabilitation work will enable the elderly to live a healthy life and contribute to modern society in meaningful ways. There is a need to cultivate a more holistic approach to life, stimulate minds through clear communication, gradual behavioural change, recreational activities, and exercises that help address death-related concerns of senior citizens. We should lead our lives in such a way that when we die, others should be following our principles, ideals, and practices. Elders' enrichment centres, assisted living homes, or care homes, like a home away from home, should help many elders enjoy their life, participate in various social service activities, and provide integrated home healthcare facilities. Nature walk, a visit to a nature park or famous pilgrimage and tourism destination, gardening activities, greenfield trips, picturesque natural landscapes or a boat ride in a lake, information sharing exercises, theatre/painting activities, and participation in social welfare activities can enliven their spirits. Further, an interactive guided tour animated by educational and fun workshops would have a definite influence on complex interactions between positive health and the mind for a more positive life. With proper care and public support, senior citizens can provide intellectual input to the vision and mission of the country and make a substantial contribution to the economic, environmental, and social sectors. A balanced and holistic approach using visionary leadership, support systems (family, social, economic, physical, and legal), and strong political will to safeguard senior citizens with an eye on our national interests can make our journey from the margins to the mainstream smooth and achieve stability in their life with the mood of optimism and progress. It is essential to extend support through motivation and counseling to help them to be in control, maintain balance, and review their daily performance, influencing their perceptions to make life worth living.

The infant mortality rate (IMR) is higher in certain individual states than the national average of 40.45 per 1000 live births. There is a decline in the maternal mortality rate (MMR) to 221 per lakh deliveries<sup>18</sup>. The current MMR in India is 178 per 100,000 live births. India has a higher IMR than several developed countries. The current IMR in India is 40/1000 live births, while the current world IMR

is 32/1000 live births. Global IMR data indicate that there is a decline in the rate during the past four decades. Focus on a different orientation of perspective, safe delivery, quality of maternal and newborn care, immunization, feeding practices, control of pneumonia, and diarrhea, and outreach programs would undoubtedly help in minimizing tragic consequences. India accounts for about 3000 deaths of children per day, and about 45% of all child deaths occur due to malnutrition and poor diet-related illnesses, while poor diet kills nearly 2.6 million infants a year worldwide<sup>19</sup>). The five causes that account for all child deaths in India include prematurity and low birth weight, neonatal infections, birth asphyxia, birth trauma, pneumonia, and diarrhea. These causes can be avoided with effective interventions such as prenatal care, skilled delivery, emergency obstetric care, newborn care, postnatal care, oral antibiotics, pneumonia and diarrhea treatment, and immunization. Extreme poverty, illiteracy, undernourished mothers, and early marriages in some parts of India are the main causes of malnutrition-related deaths of children. We can reduce the number of such deaths by providing sufficient access to quality food, adequate maternal and infant care, promoting physical activity, and appropriate access to health services, leading to more productivity and the country's growth in the long run. Immunizing children, encouraging breastfeeding, preventing dehydration and blindness, and educating women, will go a long way in minimizing childhood deaths from hunger and malnutrition issues. According to UNICEF nutrition data, forty-eight percent of Indian children under the age of five years are stunted by chronic undernutrition<sup>20</sup>). Moreover, malnutrition is responsible for nearly 50% of tuberculosis in India, and this eventually leads to higher premature death rates because of the weak immune response. This issue can be addressed by shifting our focus from food security to nutrition security and bringing about appropriate changes in policy matters. It has been observed that moderate exercise not only adds years to our life but life to years. The 2015 global hunger index (GHI) shows that India has improved its ranking to 55<sup>th</sup>, but fighting severe hunger remains a future challenge<sup>21</sup>). It is 21.7 in the developing world, reflecting a severe nature on the hunger scale, and there are no quick fixes for such long-term problems. Sensitizing people about malnutrition is crucial to tackling the problem, and population control could offer a solution to the limited availability of nutrients, energy, and space. Providing nutritious food to school students under the midday meal scheme by the government and NGOs is an excellent initiative to ensure a better life and overall well-being. Long-range vision, strategic planning, productive decisions, and implementation of poverty alleviation schemes (PAS) will help reduce starvation deaths. The problem of poor crowd control and crisis response operations in places of worship persists, resulting in stampedes killing hundreds of people. The ways to prevent a rush include restricting the number of people, extending the pilgrimage visiting hours, deploying enough personnel, constructing permanent railings along the route, and streamlining emergency response measures.

An ideologically-driven pursuit of knowledge can offer the world a unique perspective on death and core people-related issues and enhance the ability to control the trajectory of human thought and behaviour. It is important to focus on a sustainable lifestyle in post-retirement life, strategize different day-to-day activities, and systematically achieve goals. A balanced and neutral perspective will be an asset that makes for a more comfortable and pleasant experience. The government should incorporate and implement the best practices across the globe with the necessary skill sets, improved infrastructure, and advanced procedures, and frame a regulatory framework for death-related critical and advanced issues. The outcome of the court battle on euthanasia (active, passive, voluntary, involuntary) could have cultural, social, and economic implications for the stakeholders. The time of death is highly unpredictable; some people have to suffer a lot, while others passed away quickly. Comprehensive standard insurance policies covering sudden and unforeseen risks should be offered with adequate protection at an affordable premium. It is kind of interesting to note that life insurance companies do a good death business based on the fear of the risk of life, providing the benefit of insurance protection. At another level, medical insurance providers operating in India should provide people with adequate financial cover against death at a reasonable cost and prompt settlement of claims.

The total number of alcohol-related deaths in India has increased from 4308 in 2008 to 5478 in 2012<sup>22</sup>). Mortality due to alcohol as a percentage of all deaths worldwide is 3.2. The estimated annual economic costs of alcohol abuse resulting in mortality, morbidity, motor vehicle crashes, direct health care, crime, lost workplace productivity, and other expenses are roughly 185 billion dollars. Mass media campaigns, alcohol screening, and brief interventions, drunk driving laws, and school-based instructional programs are some strategies that work to reduce alcohol-related fatalities or prevent drunk driving. Many undesirable, illegal, and violent activities happen under the influence of liquor, often leading to death. A favorable national policy, social reform measures, the effective prohibition of alcohol, and adoption of international standards of safety are essential. These approaches should become a part of a participatory process involving all those directly or indirectly connected with the humanistic approach to death and wish to bring about an inner transformation in a person.

India has the highest number of dowry deaths and dowry-related suicides globally, with approximately 1.4 deaths per year per lakh women (2400/year) (Babu & Babu 2011). The social effects of dowry deaths include breach of trust and mental effects on the development of children. The dowry prohibition act, women's empowerment, enhancing educational and economic status, fighting for justice, and social support systems contribute to reducing the number of deaths due to such neglected public issues. Other reasons for suicide in women include marriage-related issues, divorce, physical abuse, and extramarital issues. Suicide is the leading

cause of death among youngsters in India. Active intervention, developing coping skills with problems, psychological counselling, suicide prevention helpline, the use of preventive medicine, and preventing future attempts, contribute to finding a stable ground and play a pivotal role in public welfare. To reduce death by suicide, suicide prevention programs, including educational courses to increase knowledge and outreach about suicidal behavior and screening programs to identify and refer to treatment, are essential.

According to WHO, a leading organization on health, nearly 7 million people die prematurely due to indoor and outdoor air pollution every year. Air pollution causes 1 400 000 premature deaths every year in India (Jha, Jacob, Gajalakshmi et al. 2008). Nearly 1.6 million premature deaths per year in India are linked to outdoor air pollution out of the estimated 6.5 m worldwide. The projected premature deaths per year due to air pollution is about 6 to 9 million by 2060. Using addictive substances like tobacco is a life-threatening habit and the leading preventable cause of death worldwide. Carbon dioxide capture technologies, recycling and reusing products, green technologies for reducing vehicular emissions, avoiding smoking, and financial support to environmental initiatives could help reduce the overall death rate due to pollution. Besides, massive awareness campaigns against pollution, organic farming activities, laws to curb polluting activities, using public transport and cycling, use of electrically powered vehicles, reduced consumption levels, and buying less polluting products can go a long way in reducing pollution levels. A recent study indicates that magnetite nanoparticles, an airborne particulate matter, in the human brain could be a major risk factor for neurodegenerative diseases (Maher, Ahmed, Karloukovski et al. 2016). A new nanomaterial policy must be framed, ensuring that nanomaterials are produced, used, and disposed of safely and sustainably. Further, research in the area of eco-friendly mining, green manufacturing, safe transporting, product recycling techniques, solid waste management practices, solid-regenerative cultivation methods, damage control measures, and supply chain management is of paramount importance.

The mortality rate due to electrocution in India has an average of 32.3 deaths per one lakh (2.1%) (Gupta, Mehta & Trangadia 2012; Kumar, Verma & Verma 2014; Hussain & Khan 2015). Some of the essential precautionary measures that help in reducing the number of deaths by electrocution incidents include educating the public about the potential dangers of using electricity and fulfilling all the electrical safety regulations. Further, replacing the damaged wires or fittings, changing the fuse wire after disconnecting the mains, touching electrical accessories with dry hands, and attending immediately to defective earthing are also equally important. We have to make sure that the electrical work was done by trained and qualified electricians and avoid using electrical appliances in wet locations while using this valuable energy resource. The collective intelligence of our people, realizing the



long-term consequences of preventable deaths, should foster new thinking and develop practical solutions to reduce such mortality rate<sup>23,24</sup>). However, current management practices, play an essential role in reducing electrocution death rates, and require constant monitoring and maintenance of electrical components.

India accounts for more than one-third of all deaths due to rabies every year, and the rabies virus is transmitted through dog bites (Sudarshan, Madhusudana, Mahendra et al. 2007). The magnitude of the problem is evident when we consider that 36% of the globe and 65% of Asian human rabies deaths occur in India. September 28 is a world rabies day recognized by the United Nations. Preventive measures include public health messaging, washing the wounds, anti-rabies vaccination, increased awareness of sources and routes of virus transmission, post-exposure treatment, and wildlife rabies control programs. At least 2.8 million people die every year worldwide as a result of being overweight and obese<sup>25</sup>). India is the third most obese country in the world, and estimated deaths related to being overweight are 3 – 4 million (Kalra & Unnikrishnan 2012). Nearly 10% of the Indian population suffer from morbid obesity because of the easy accessibility of unhealthy, processed food products and genetic susceptibility to weight accumulation. Indians have a higher risk of diabetes because of obesity. It is important to offer healthy food options at affordable costs and adopt weight loss programs to enhance the quality of life. One of the most crucial ways to change personal and social attitudes and changing mindsets would require a multi-pronged approach and at multiple levels, to take a walk in a different way to have a feel-good experience. A timely diagnosis and subsequent treatment for their medical conditions would contribute to favorable conditions or reverse the harmful effects.

Examining India's national death data indicates the necessity of a multi-pronged approach, proper action plan, and execution to reduce the number of unnatural deaths (Table 1). Several transformational steps are required to contribute to the creation of a national action strategy and develop a local action plan in line with it to reduce annual deaths substantially. Restructuring and streamlining the whole educational system to channel the energy of youth into constructive activities and the antiterrorist act that provides punishment for terrorist acts are necessary for the larger interest of the common masses and the nation. Print and social media play a pivotal role in bringing awareness and providing knowledge, understanding, and the reality about death and forming opinions on matters of public importance related to death. Creating awareness, community empowerment, and engagement movements by civil society organizations can provide life-sustaining dynamics. A substantial proportion of premature deaths can be avoided despite the unquestionable presence of mortality, as everything evolves through transformation. It calls for a paradigm shift from a narrow medical to a broad human-centric approach to have an invaluable impact on our lives.

**Table 1.** Comparison of Indian mortality statistics with that of the world [NA = not available, m = million]

Preventable Main Cause	World/year	India/year	% Global
Rabies	55 000	20 000	33
Road traffic accidents	1.25 m	1 37 000	10
Fire accidents	265 000	25 000	9
Electrical accidents	1 083	80	7
Dowry deaths	NA	18 200	-
Snakebites	90 000	46 000	50
Alcohol consumption	3.3 m	2.5 m	76
Tobacco related deaths	6 m	1 m	17
Overweight and Obesity	2.8 m	0.57m	16
Malnutrition and poor diet	3.1 m	2.6 m	83
Unsafe water and poor sanitation	2.2 m	0.75 m	24
Sexually transmitted diseases	2 m	1.7 m	85
Drug abuse	200 000	104 000	52
Suicide mortality	800 000	1 35 000	17
Air pollution	6.5 m	1.6 m	24

Bubonic plague, cholera, influenza, and smallpox are pandemics (a worldwide spread of a new disease), which killed nearly 300 – 500 million people so far. The death toll in the HIV/AIDS pandemic was more than 36 million; the flu pandemic killed nearly 1 million, Asian influenza has taken the lives of about 2 million people, and the sixth cholera pandemic killed over 800 000<sup>26)</sup>. In the current outbreak of coronavirus disease, COVID-19, the death toll is 6 627 331 worldwide, while that in India is 530 586<sup>27),28)</sup>. However, multiple new positive cases have been reported from different parts of the country. The main routes of transmission include droplet transmission, contact with a contaminated surface, and airborne transmission. The system of stringent checks and careful balances between life and death, saving lives, and generating livelihoods must be in place while implementing practically feasible COVID-19 standard operating procedures (SOPs). It is essential to wash hands often for 20 seconds with soap and water or hand sanitizer with 60% alcohol, cover the cough and sneezes with a tissue, avoid touching the mouth, eyes, and nose with unwashed hands, disinfect frequently touched surfaces such as buttons, handles, and knobs, and avoid close contact with those who are sick, to prevent the spread of COVID-19 and reduce the mortality rate considerably. There is a significant fatality associated with the COVID-19 infection due to extensive microvascular thrombosis (MVT) and subsequent respiratory failure. Therefore, the critical need is for early recognition and intervention with blood thinners such as heparin or aspirin under proper medical supervision. As the pandemic contin-

ues, we need to follow specific principles, social cooperation, physical distancing practices, and a political system that protects people in normal conditions as well is essential. This interconnectedness could make an individual and collective journey of empowerment.

#### **4. Inspired by life**

The established conventions, social practices, and traditional protocols are peculiar to a particular religion and will have a long-term impact on perceptions, perspectives, and uniform public policy formulations. Every religion preaches values such as love, sharing, compassion, truthfulness, forgiveness, awareness, gratitude, concern, curiosity, empathy, discipline, happiness, peace, respect, responsibility, spirituality, and social work. It shows people a different perspective on life. This aspect could have a considerable impact on the minds of individuals to touch their lives in a variety of ways and translate into a significant improvement in the socio-economic status of people. It is important to eradicate corruption, cruelty, casteism, exploitation, greed, inefficiency, laziness, nepotism, regionalism, and other vicious practices to improve the country's condition. We have to believe in the principle of 'live and let live' to ensure that the country becomes an ideal place to live for law-abiding citizens. Persistent practice should be a matter of policy and principle, and the conditions would improve in the future with proper coordination and cooperation. It is essential to create awareness on a local level about general safety aspects and adverse impacts, challenges, and opportunities through workshops, seminars, educational campaigns, and outreach sessions. It provides education for the sustainable development of local activities by investing in research, education, and training.

Most unnatural deaths are preventable with simple lifestyle changes, stress level reduction, positive thinking, avoiding toxins and pollutants, proper food choices, regular exercises, increase safety awareness and consciousness, and appropriate security precautions. Further, educational research activities, positive attitude, idealistic approach, progressive decisions, and implementation of the concerted actions of the people, government, and stakeholders enable us to move towards the right and excellent living, social advancement, and national progress. Maintaining a proper work-life balance, strategic health plans, early diagnosis of diseases, modern medical methods, and innovative solutions for longer life extend the scope for the context or spirit of achieving the higher goals of life. Every individual has to take care of basic human safety needs by identifying the possibility of dangerous situations, actions, and reactions, and taking proper precautions to safeguard themselves from accidents, poisons, fire, or natural calamities. The values such as hope, happiness, honesty, trust, simplicity, cooperation, empathy, unity, affection, and love should be inculcated in youngsters during their educational phase.

It is a matter of concern that we often fail to understand the contribution of the elderly, unique perspectives, and presence in society. Non-profit organizations, self-help groups (SHGs), and non-governmental organizations (NGOs) should provide strong moral support and encourage seniors to stay fit and healthy to fulfill their physical, mental, and spiritual needs. These social service organizations will provide a research window to the changing death landscape for students of medicine and allied health sciences. Sound scientific analysis of reliable mortality data will provide incredible insight into various aspects of unnatural deaths and the proper precautions to be taken to save lives. The research involving the analyses of death categories, such as accident, poisoning, diseases, and discrete variables such as gender, race, age group, could throw light on suitable practices to transform unnatural death into a lively, interactive space. Murders and fake encounter killings are the small number of fatalities investigated, and further research attention in this area is required to change the line of thought of criminals. Online petitions, street protests, and popular articles will assist in contributing to the cause of life, and the challenge is to maintain a judicious balance between individual rights and moderate ideologies. The concept of human rights and duties has roots in human values, and value-based education can lead to a high moral standard and observation of human rights that provide us and the real society dividends. The murder rate has been steadily declining over the past two decades from 4.61 in 1992 to 2.6 in 2015, according to the national crime records bureau<sup>29</sup>). We could reduce the number of incidental deaths by establishing early warning systems, taking preventive measures, and immediate relief and rescue operations on a war-footing. In essence, this is a socio-economic problem, indicating the need for the prevention of diseases, awareness, treatment, care, support, and rehabilitation of senior citizens, as they reflect historical and cultural values. The measures taken by successive governments since independence towards senior citizens have been extremely inadequate, and institutionalized political and social measures are required with substantial social investing. Further, good governance involving quick decisions, sensitive handling of public grievances, public-private partnerships, and reforms to ensure transparency are the desired responses. Reading a series of thought-provoking articles by well-known personalities from the spiritual world add a lot of value and insights and aid in building their confidence. The body aches, increased episodes of illness, mood swings, memory issues, change in eating habits, and social withdrawal, reflect physical and psychological stress among the elderly. This problem is further complicated by the treatment using different systems of medical practices, including observed science, such as Ayurveda, homeopathy, or naturopathy and proven science like the allopathic system of medicine.

The great Indian experiment on social transformation in a large social laboratory, amongst the community of nations, act as a vehicle to facilitate the incredible journey of sustainable progress and the caring persons of a family, and social obli-

gations are the key to social harmony. Establishing long-term projects that combine the multidimensional issues of protection and sustainable development of human activities and implementing a sustainable development policy will bear fruit over the next decade. The major questions that concern us are about the very idea of free will and the spirit of human freedom to assert, argue, dream, disagree, exist, educate, live, love, speak, think, teach, unlearn, work, and worship. The quest for freedom from the problems of death, desire, sorrow, suffering, fear, frustration, ignorance, misery, pain, unfulfilled dreams, and unattained ideals is a process for the improvement of human existence.

### **5. Staying alive**

It is essential to understand the meaning of life and the immense complexity of death and apply the fundamental principles and concepts to real-life situations to make a real difference every day. Facing imminent death involves considerable courage, intelligent foresight, and implicit trust, and the doctor should be determined to help even if there is the smallest chance of survival. Analyzing the situation, imagining probable consequences, strategically planning to achieve the desired result, a proactive approach to managing such situations, and taking the necessary measures are crucial to prolonging life by postponing death. That way, the unmet needs of each individual may be fulfilled. There is a need to take an overall perspective, covering general insurance, accident prevention programs, cost structure, risk management, technological upgrades, and customer service. Also, we have to protect the elderly, and train youngsters in the matter of using scientific training facilities on first aid procedures, emergency care, and nursing senior citizens. It would be better to have hands-on and skill-based training using physical models and a series of simulated events by a fleet of trained technicians. Based on the analyses of the death data from publicly available databases, published reports, and exploration of various possibilities, we have concluded that the current situation indicates the inadequacy of organized efforts to deal with the problem and requires a thoughtful approach to solving the problem. It is time to recognize that unnatural death is a severe issue with social, economic, and psychological costs, and could even enter the domain of religious-political conflict. The most significant public health measure is to expand access to emergency healthcare and make hospitals operate economically, sustainably, and responsibly, including life-sustaining treatment programs. There is an urgent need to substantially increase the registration of the number of deaths with a documented cause and improve the quality of national health data<sup>30</sup>.

Public and private hospitals can adopt a more humane approach to a limited number of economically poor older adults by seeking public donations to continue rehabilitation expenses. Donated cash and other useful items should be dedicated to this particular cause. Medicolegal investigation and pragmatic analysis of unnat-

ural death data help us to find out the pattern, causes, and to formulate strategies to prevent and control the number of such irreversible deaths. Death education, near-death experiences (NDE), thanatology, the dying process, life-threatening conditions, traumatic death, physical and cognitive aspects, the psychology of death and grieving, dreams and reality, life after death, forensic pathology, euthanasia, mechanisms for death, consciousness after clinical death, explanatory models, end-of-life counseling, and sociology of death are some of the prominent research areas related to death. Message for the masses with worldwide links from the observation of the exclusive experience of living 'life on the edge' includes 3Cs-communication, conservation, and capacity building. If we can identify diseases at an early stage, most of them can be cured through proper medical treatment, thus reducing a significant number of deaths per year. It has been estimated that approximately 58% of cancer deaths worldwide are due to excessive alcohol consumption. The risk factors responsible for global chronic disease trends include physical inactivity, high blood pressure, smoking, high body mass index, alcohol consumption, and diets low in vegetables and fruits. Eliminating these leading preventable causes of premature deaths in India by preventing, detecting, and mitigating action steps remains a challenge for the healthcare system. The factors which help lead a normal life include early detection of diseases, changes in the environment, work, recreation, regulated food and sleep habits, and avoiding any potentially life-threatening activity. Physical health, exercise, activity level, healthy diet, social and community events, relationships and abuse, meditation and other relaxation methods, sound sleep, and linked perspectives on death can influence a person's emotional state. It is significant that the survival of the fittest is applicable in a death situation and that there are several examples of people with strong willpower at the core of life who will live longer. The analysis of the death-cause relationship brings an insightful perspective of a fragmented approach to safety as a critical barrier to prolonging life in the Indian context.

We lose much of the fixed nitrogen present in our bodies during the cremation process. The release of greenhouse gasses during cremations and the vaporization of chemicals that may be present in the cremated body, such as mercury in dental fillings, can have an environmental impact. The use of modern crematoriums could reduce the environmental impact to some extent. Meaningful change is possible with substantial lifestyle changes that emerge from the specific inferences of everyday life and events. With environmental health problems, collective efforts at the societal level that are preventive remain paramount. In contrast, with human health concerns, individual choices can make the difference between life and death. The actual causes of death may involve a complex interplay of mind, body, spirit, and the surrounding environment. The awareness of the relative significance of different causes of death in the wider context will start new lines of thought to pursue obtaining longevity benefits. The desired response includes a change of attitude, a



paradigm shifts in approach, feelings of nationalism, and constructive actions for these chronic, life-threatening issues in modern society. We need to change our approach to educating our aspiring youngsters for a better tomorrow and adopt a 'zero-defect, zero-effect' model of industrial production activities in sectors such as agribusiness and food processing, automobile and engineering, renewable energy, pharmaceuticals, textiles and handloom, tourism and urban development.

There are multiple perspectives and various strategic and tactical approaches to lifting the human spirit and facing the great inevitable. Though dying is a natural event in life, the focus of palliative care for confirmed terminally ill persons should be on making them comfortable, enhancing the quality of life, providing emotional support, and helping the family through life-sustaining therapies, and emergency life-saving measures to perform better in day-to-day life. Further, value-added services such as counseling, especially in sexual, platonic, business, and public relationships, would be useful in fulfilling individual needs and achieving milestones in a journey of responsibility over the years. To manage a crisis, we have to prepare a worst-case scenario plan and its effective execution via the particular procedure. Both parents and children should pursue a 'family first policy' and work together to create a favorable climate for each other, especially in this age of nuclear families, to reestablish strong family ties with shared bonding features. Moreover, the steady relationship within a family and increasing the spirit of human affection, empathy, compassion, sensitivity, brotherhood, and kinship, help fellow beings to live with dignity, as they are part of the society and the ecosystem. The government policies should address domestic violence and torture against the elderly by family, state, and others in a comprehensive manner. A recent trend is to provide home health services, disease management services, and internet-based healthcare services at an affordable cost, especially for those with long-term chronic illness or palliative care.

Death education focusing on the human biological and emotional aspects is essential to ensure the safety, well-being, and happiness of senior citizens. Death education goals include increasing understanding of the physical and psychological changes that accompany dying, dynamics of suicide, learning the techniques to cope with the passing of a loved one, gaining information on medical and funeral services, unfinished business and wills, and promoting knowledge of social and ethical issues. We have to provide access to quality death education to create more primary educators through professional development programs, with increased content and variety to suit their tastes and make life an elevating experience for senior citizens. Population control methods, pregnancy care, immunization, and treatment of children, prevention, and treatment of infectious diseases, improved water and sanitation, cancer screening, diabetes management, cardiovascular disease treatment, access to hospitals and essential medicines, and health security. Further study of the objective analysis of the causes of death and specific precautions to save a life is a useful tool for illustrating the relative burden of cause-spe-

cific mortality (Dare, Fu, Patra et al. 2017). In the current scenario, analyzing the issues and working on suitable solutions for the problem of unnatural death worldwide remains a priority for many countries in the world. It is equally important to establish safety research stations and safety-related organizations across the country to facilitate safety workshops and exposure visits involving interesting exhibits, photographic images, video shows, demonstrations, and security devices. General safety awareness efforts promote participatory activities, social empowerment, and facilitate networking among like-minded people. The need for security and safety has to enter the national consciousness at all levels and become an integral part of thought, attitude, behavior, and action to make a significant difference in the lives of millions. It is crucial to make a rational choice based on a review of our overall capabilities using strength, weakness, opportunities, and challenges (SWOC) analysis, as an individual can only be as strong as the society in which he lives.

## **6. Conclusions**

The world's most valuable human life is increasingly becoming complicated, with every passing decade as acceptable core values and lifestyle choices change. Adopting a sedentary way of life, adulteration of food items, increased consumption of fast food, alcohol, and degenerative diseases among senior citizens contribute substantially at the demographic level to the mortality pattern prevalent in the country. As we know, life ends the personal experience is universal, and the bereaved people have to adjust to a new routine by understanding, drawing support for, and coping with their loss. It is essential to strive for developing a different perspective as we face inevitable death that can impact both society and nations at various levels. The high-class spiritual literature offers interesting deep insights into the influences that shape our consciousness, correlations of science and philosophy, and a primary relationship with nature for a tension-free, long, healthy, and peaceful life. The existential philosophy of humans as a conscious being expects the mood of collective optimism and progress, and death is about remembering people and places. Psychological counselling and medication therapy benefits include elevated mood, better cognition, emotional release, improved sleep, self-expression, better communication, superior coping, and sociability. The Kubler-Ross model postulates five stages of human emotions experienced by survivors of an intimate's death- denial, anger, bargaining, depression, and finally, acceptance. It is essential to encourage local people to participate in community funeral activities, and this will help them in their journey of life, liberty, and the pursuit of eternal happiness. The pattern of funeral functions, final rites, religious ceremonies, and formalities, varies depending on the different cultural backgrounds. However, this event marks the endpoint of the person who has died and the starting point for the survivors to resume their lives. We have to think about the relevance of several funerals-related practices, considering today's funeral costs and trends, contemporary times, and

sensibilities in the modern world. It is undoubtedly necessary to commit to maintaining inter-religious harmony in light of the significance of these various practices and disturbances to other communities. The warning bells are ringing for death, and the fight against unnatural death will be useful in scaling up strong measures. Indeed, the statistical data on death indicate the final point that it has undoubtedly created a series of severe challenges regarding unnatural and premature deaths and calls for immediate action to reduce the total number of such deaths in the country. In industrialized nations, the mortality rate due to senescence or biological aging approaches 90%.

Social networks can empower us by offering wider choices, a broader perspective, and enriching our lives by having greater social cohesion and an extraordinary diversity of life. The ideological software of philosophy, along with coordinated strategy, would provide a safety cover, which would help us to live with a sense of security and face death boldly. It is instrumental to study the natural steps in the death process in detail and a person's emotional journey, especially in the context of the multicultural, multilingual, and multiethnic Indian contexts. The process of aging involves cellular damage, the creation of non-functional cells, and a less efficient antioxidant defense system. The physiology of dying includes a series of irreversible events leading to death. Basic body changes are leading to all deaths, including the failure of pulmonary and cardiovascular systems, failing of metabolism, the urinary system, the nervous system, specific sensory decline, and further neurologic decline in death. The new study will add depth and complexity to our emerging understanding of death, and it has implications for understanding human evolution and making people look to the future with hope. Computer models of death could provide insight into differentiating between high-risk and low-risk patients based on the extent of injured tissues. The design of physical models to simulate a dying patient could help a medical student learn the subject of death in a better fashion. We must understand what happens during the death process because that would help us to look for methods to cope with the situation involving technical and operational challenges. It is essential to understand the catastrophic and historical events that will alter the course of the lives of people to avoid past mistakes and plan to shape the trajectories of individual lives in the future.

Somatic death involves the failure of the body as an integrated system and the cessation of vital functions of the brain, followed by a stoppage of circulation and respiration. Molecular death involves the death of individual cells and tissues that takes place after a few minutes to hours. After death, the decomposition process mainly includes five stages- initial decay, putrefaction, black putrefaction, butyric fermentation, and dry decay. The medicolegal aspects of death include reassuring patients' relatives, declaring death by a doctor, filling death records, and respecting and releasing the body. The cases for medicolegal postmortem examination or autopsy include instantaneous death, death due to poisoning or accidents, death

during operation or under anesthesia, and all other unnatural causes. It is important to combine emotional and psychological information derived from their participatory experiences and scientific facts derived from research to have positive energy with proper motivations, thought processes, and active engagement in social support activities or animated conversations with like-minded people. It requires an in-depth analysis of the implications to ensure productive steps and to streamline the geriatric hospital and center care systems, guided by constructive public opinion and commonly accepted standard practice in medicine. The study warrants the undertaking of focused, high-quality research to give insights into circumstances or triggers of such death, the health care seeking of these victims, well-being treatments, and precautions to be taken to reduce such incidents and develop solutions to the most pressing death-related challenges of the day.

Gene-tech and gene-therapy companies are investing money in research related to cellular proteins or sirtuins to stimulate longer cell life and invent a genetic therapeutic drug to treat aging diseases. The three overall practice recommendations are i) to develop periodical death analyses based on statistics and survey both in websites and municipalities, ii) to improve general coordination and awareness at local, national, and international level regarding the value of each life, and iii) to review the life security measures and life safety standards currently in force and implement a stringent action or high penalty for defaulters of various safety regulations. It remains to be seen if the spirit of the people keeps the Indian flag flying high in the world in the process of understanding the riddle of life and the universe by translating doctrines into deeds and changing India's intellectual landscape. It becomes essential to be an evolved society in the modern digital information age by changing our mindset and the fundamental essence of adaptation, improvisation, and inspiration, creating complex moods and memories etched into our consciousness to strengthen the sustainability safeguards. This connecting link will act as a bridge allowing for creative freedom and scientific temperaments in moving towards freethinking voices, multicultural diversity, universal human rights, social justice, uniform civil code, and borderless global union.

## NOTES

1. <https://www.worldlifeexpectancy.com/world-rankings-total-deaths>
2. <https://www.buzzfeed.com/michelleregna/death>
3. [https://www.who.int/healthinfo/mortality\\_data/](https://www.who.int/healthinfo/mortality_data/)
4. [https:// www.worldbirthsanddeaths.com/](https://www.worldbirthsanddeaths.com/)
5. <https://www.amnesty.org/en/what-we-do/death-penalty/>
6. [https://en.wikipedia.org/wiki/capital\\_punishment\\_by\\_country](https://en.wikipedia.org/wiki/capital_punishment_by_country)
7. <https://www.ncrb.nic.in/statpublications/adsi/adsi2014/adsi-2014fullreport.pdf>

8. <https://www.who.int/mediacentre/factsheets/fs324/en/>
9. <https://www.un.org/en/development/desa/news/population/2015-report.html>
10. <https://www.who.int/mediacentre/factsheets/fs365/en/>
11. <https://www.thehindu.com/sci-tech/...renal-failure-deaths/article16896912.ece>
12. <https://www.data.gov.in/keywords/accidental-deaths-and-suicides-india>
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