Sri Lanka Association for the Advancement of Science
(SLAAS)
Section A Newsletter

APRIL – 2024 Volume 19 – Issue 01

In This Isuue……

Epidemiology of the Current Measles Outbreak in Sri Lanka and Mitigation Measures

Compiled by:
Epidemiology Unit, Ministry of Health

Measles is one of the most contagious viral infections, with humans identified as the only natural host. It is characterized by fever, respiratory symptoms such as cough & runny nose, conjunctivitis and a distinct maculopapular rash. One measles infected person is capable of infecting an average of 16-18 non-immune people. If you ask a person in their 40s or 50s (who were born before the introduction of the Measles Containing Vaccine in Sri Lanka), he or she would be likely well aware of this common childhood infection that would have affected almost every child in that era. The disease has been described in ancient texts as far back as the 9th century. Prior to the advent of vaccination, measles was an endemic disease around the world, with high morbidity & mortality. With advances in health and better nutrition, mortality rates dropped, though globally remaining relatively high, with approximately 30 million cases and over 2 million deaths occurring each year. Serious complications of measles include blindness, encephalitis, severe diarrhea, otitis media and pneumonia - which is the most common cause of death associated with measles. Severe cases are especially associated with poorly nourished children, those with Vitamin A deficiency and weakened immune systems. An especially fatal rare complication following measles is Subacute Sclerosing Panencephalitis (SSPE), a rare degenerative central nervous system disease. A known risk factor for SSPE has been contracting the measles infection in younger ages. There is no effective cure for this dreaded complication, along with causing a significant burden emotionally and financially. Thus, it is imperative that we pursue appropriate timely measures to combat this virus.

A game changing public health intervention against measles was the development of the live attenuated measles vaccine in the 1960s and subsequent administration in several countries, leading to a substantial decline in measles related morbidity & mortality. The cost-benefit ratio of the measles vaccination has been well documented, with it saving more lives per unit cost than any other health interventions.

In Sri Lanka, the reported annual incidence of measles ranged from 12 to 49 cases per 100,000 population between 1951 – 1980. In 1982, prior to the introduction of the Measles Containing Vaccine (MCV) to the National Immunization Programme (NIP), over 13,000 cases of measles were reported (87 cases per 100,000 population). In this backdrop, the Measles vaccine (MCV1) was introduced as a monovalent vaccine to Sri Lanka's NIP in 1984, to be administered at 9 months of age. Effectiveness of this intervention was witnessed in the subsequent steady decline in cases over the next 15 years.

Subsequently, a large outbreak occurred in 1999-2000, predominantly among the adolescent age groups. In response to this outbreak, in 2001, the Measles-Rubella (MCV2) vaccine was introduced as the second dose to be administered at three years of age along with national level catch-up campaigns targeting the age categories of 10-15- & 16-20-years in 2003 & 2004. Following these mitigatory measures, the country experienced a period of low incidence of measles for over a decade.

In 2011, the NIP introduced the Measles-Mumps-Rubella (MMR) vaccine replacing both measles vaccine (at 9 months of age) & Measles-Rubella vaccine (at 3 years of age); while shifting the first dose of MMR from 9 months to 1 year in view of getting a better immune response. Sri Lanka experienced another measles outbreak of moderate intensity in 2013, predominantly among 6 – 11 months old infants. Possible epidemiological explanation for this outbreak was existence of inadequate protection to the infants via maternal antibodies. In response, a national level Supplementary Immunization Activity (SIA) was conducted in 2013 targeting infants aged between 6 – 11 months. Based on the results of the national level sero survey which indicated very low level of protective antibodies among infants, the MCV1 was shifted from one year to nine months.

The immunization coverage for both MCVs has been consistently >95% across all administrative districts. This is predominantly due to the well-established public health infrastructure with integrated immunization service delivery mechanism in the country. The public health staff from the central, district and divisional levels (Medical Offices of Health) are actively involved in ensuring that children in their respective areas are administered childhood vaccinations, age appropriately.

Notification of all clinically suspected measles cases to the Epidemiology Unit, is included in the routine communicable disease surveillance system with mandatory laboratory confirmation and special field investigations to be conducted for each suspected case. A more sensitive case definition for measles case surveillance ("fever and maculopapular rash") was also established, in view of capturing all possible measles cases. A laboratory confirmed case will result in screening of the immunization status of all children <15 years of age and active search for clinical cases among all ages within a one kilometer radius OR in 50 surrounding households. Screening of all who were in contact with the patient is also done and vaccination arranged for all close contacts aged <45 years of age who haven't completed two doses of the MCV.

The Epidemiology Unit of the Ministry of Health is responsible for planning, coordination and implementation of control & prevention of all VPDs (including measles) along with overall monitoring and evaluation of these programmes. The Advisory Committee for Communicable Diseases (ACCD) is a national level body at the Ministry of Health tasked with the responsibility of evidence-based communicable disease related policy decisions. The National Measles & Rubella Verification Committee is responsible for overseeing and routinely reporting the measles elimination situation to the regional verification committee.

Through concerted efforts by all involved; Sri Lanka achieved a significant milestone in eliminating measles from the country in 2019. Given this context, it is vital to sustain this elimination status via intensified case-based surveillance and ensuring sustainability of high vaccination coverage.

The year 2020 brought with it the onset of the COVID pandemic and its consequent severe impact not only on the health of the general population but on the country's economy and healthcare sector. The pandemic led to a significant decline in global and regional childhood vaccination coverages including measles. Thus, an even greater rise in the number of measles cases occurred globally and regionally following the COVID pandemic, which is still continuing. However, Sri Lanka was able to sustain high coverage of all childhood vaccinations (>95%) including the measles vaccination during and following the COVID pandemic.

In the recent past, the country has experienced an emergence of vaccine hesitancy among small isolated clusters of fundamental groups in selected districts. At present, prevalence of vaccine hesitancy is approximately 0.5% of the total child population in each birth cohort, which has led to the accumulation of an estimated number of 6000 - 7000 unvaccinated children, who are predominantly scattered among selected districts.

Amidst the global and regional large scale measles outbreaks following the COVID pandemic, the national communicable disease surveillance system detected the first case of measles in May 2023 from the National Hospital of Sri Lanka. This patient was a 23-year-old unvaccinated male in the Colombo Municipal Council (CMC) area. This case heralded the start of an outbreak of measles in the country, with initial cases being reported predominantly among pockets of vaccine refusal communities. Subsequently, the transmission spread to those who were partially vaccinated (who have received a single dose of MCV) and those who were not yet eligible for vaccination via routine immunization services (<9 months of age). As of now, a total case load of 919 has been reported. The cases are primarily being reported from Colombo (36%), Gampaha (19%), Kalutara (6%), Jaffna (10%) and Galle (10%), with individual contributions from other administrative districts being <2%. The outbreak reached its peak in the month of August 2023 with 211 cases reported within that month, and since then showed a gradual decline in subsequent months. Around 16% was being reported among <9 months old aged infants, nearly 30% among those aged between 9 months to 20 years and 37% among the 21-30 years age category. From the reporting of the first case, this was considered as an outbreak, in lieu of Sri Lanka being certified as a measles eliminated country. Accordingly, the Epidemiology Unit of the Ministry of Health activated the outbreak response plan with several activities as follows:

- For all suspected measles patients with 'fever & rash', both serum and throat swab samples were collected for laboratory confirmation.
- All contacts of confirmed cases are followed up for two incubation periods by the field public health staff (minimum of 28 days), to ensure no continuation of cases and early detection.
- For each confirmed case, the surrounding 30 – 50 households or within one kilometer radius are screened for: clinically suspected measles & occupants' vaccination status.
- If unvaccinated individuals are found, vaccination is arranged according to relevant immunization schedules.
- Awareness activities regarding measles outbreak response were conducted to relevant groups.
- Special vaccinations were arranged for high-risk groups such as health care workers & prisoners if even one case was found positive.
- Timely official communication was carried out with the WHO country office and South East Asian Regional office.

Considering the epidemiological evidence of disease burden, affected age groups and highly affected districts, the Ministry of Health along with the concurrence of the Advisory Committee of Communicable Diseases (ACCD), decided to conduct the SIA utilizing the MMR vaccine targeting 6 – 9-month-old infants in selected high-risk districts in January 2024.

This age group is considered to have a significantly higher risk of measles related complications such as SSPE. Rationale for selecting nine high risk health districts were the reported number of cases, attack rate, prevalence of vaccine hesitancy, and rapid population movements / density. This was considered as an additional dose of vaccine to the routine doses administered via the NIP. The SIA was successful in ensuring an overall coverage of >96% in the selected age cohort. During this period, an enhanced focus was placed on conducting the ongoing nation-wide catch-up vaccination activity targeting a minority of children (aged between 9 months to 15 years) who had missed their due routine MMR vaccine. Focused measures to address vaccine hesitancy were ramped up in concerned districts as well. At the time of writing, the outbreak continues, albeit with gradually declining incidence rates. This decline is primarily due to the timely, scientifically valid mitigatory measures taken by public health staff.

It is imperative that we do not lose the traction we have gained in combatting the current outbreak. Sri Lanka faces challenges to maintain our measles elimination status. Vaccines are one of the best preventive measures that public health can offer. With the success of the National Immunization Programme in Sri Lanka, paradoxically, it is to be expected that there is potential for the general population to become complacent towards such diseases which aren't frequently seen. Hence, sustained vigilance via comprehensive and timely surveillance measures, timely collection of samples sent for laboratory confirmation, with age-appropriate vaccination to eligible children, is imperative in safeguarding our population against the global resurgence of measles and ensuring a healthier future for the generations to come.

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An Update on Dengue

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National Dengue Control Unit

Introduction to dengue

Dengue fever is an illness caused by the dengue virus which has four different serotypes. These are named as DENV-1, DENV-2, DENV-3 and DENV-4. Dengue infection results in life-long immunity for a particular serotype but the existence of these four serotypes makes it possible for the same individual to contract dengue fever more than once in a lifetime. Viral transmission is through the female mosquitoes of *Aedes aegypti* and *Aedes albopictus*. When an infected mosquito (which carries the virus) bites a healthy individual, the virus enters the human blood stream. Then the virus multiplies within the human body for 4 to 6 days and that person becomes infective (i.e., The person has the virus in the blood and can transmit the virus to another mosquito). When a non-infected *Aedes* mosquito bites an infected individual, the virus enters the mosquito and multiplies within it. This infected mosquito spreads the disease to humans.

History of dengue in Sri Lanka

Dengue is a major vector borne disease in Sri Lanka. The first serologically confirmed case was reported in 1962. Its presence and geographical expansion within the island grew gradually with sporadic outbreaks in different parts of the country. In 1988, Dengue Hemorrhagic Fever, the severe form of dengue was first reported in Sri Lanka. With the presence of more severe forms of dengue, both the frequency and the magnitude of dengue outbreaks increased, exerting a substantial burden on the country's health care system. Both the morbidity and mortality due to dengue were on the rise, which was evident by the increase of patients to a maximum of 15,500 in 2004 compared to just 1,500 patients per year between 1980-1999. Since 2009 researchers have observed a sharp increase in cases culminating to a major outbreak in 2017, with over 186,000 reported cases and 440 fatalities. As depicted in Figure 1, the case burden of dengue has gradually increased while the case fatality rates show a sharp decline since the early 2000s.

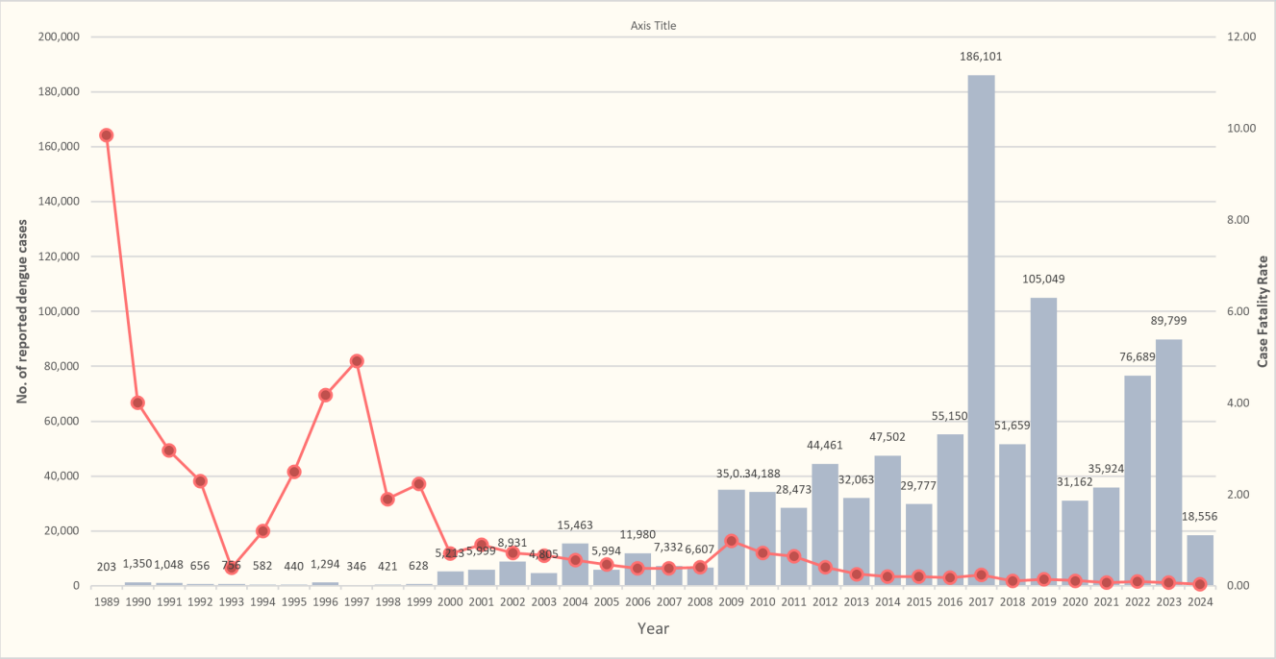

Figure 1: The trend of notified dengue patients and Case fatality rate: 1989 – 2024 (upto March 15th)

Given the ever-increasing disease burden due to dengue in Sri Lanka, in 2005, the Ministry of Health took a policy decision to establish a dedicated unit for dengue prevention and control. This unit would serve as the Ministry's focal point agency for coordinating with different stakeholders in dengue prevention and control in Sri Lanka. Later the scope and the mandate of the National Dengue Control Unit (NDCU) were broadened as a dedicated directorate to initiate following major interventions:

1. Entomological surveillance of dengue
2. Integrated vector management for dengue prevention and control
3. Inter-sectoral collaboration and stakeholder coordination in dengue prevention and control
4. Social mobilization and community engagement for dengue prevention
5. Assisting and coordinating for capacity building in clinical management of dengue for first line clinicians and other allied health staff
6. Monitoring and evaluation of both national and sub-national activities for prevention and control of Dengue.

Effect of seasonality on dengue

Dengue exhibits a seasonal pattern with two seasonal peaks coinciding with the South-West and North-East monsoonal rains (May - August and October-January, respectively), driven by a combination of climatic or environmental factors for transmission in both urban and rural areas. (Fig:2). During the South-Western monsoon, dengue cases are largely reported in the wet zone of the island whereas, during the North-Eastern monsoon, cases are reported from the dry zone, including the Northern and Eastern Provinces.

Nevertheless, sporadic outbreaks and clusters are reported across the island throughout the year, which signifies the endemicity status of dengue in Sri Lanka. Dengue prevention and control strategies are tailormade to go hand in hand with this unique seasonality pattern. However, with the impact of climate change and frequent extreme weather events, researchers are now observing a variation in this known seasonality pattern, which might be studied in detail to understand the complexities surrounding the changing epidemiology of the disease.

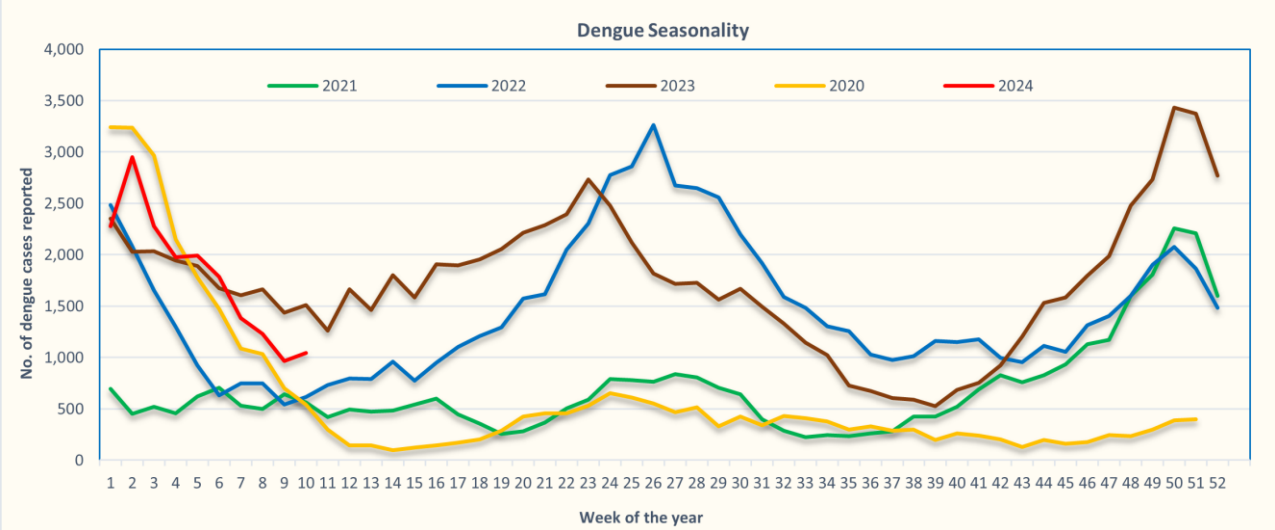

Figure 2: Weekly distribution of dengue cases in Sri Lanka from 2020 to 2024 (Up to 10th week)

Dengue vector bionomics

Ae. Aegypti; the primary dengue vector prefers human blood whereas *Ae. Albopictus*; the secondary vector, prefers blood meal from animals. Usually, *Aedes* mosquito sucks blood during the daytime (6.00 AM to 11.00AM and after 3.00PM until sunset). They do not normally bite at night, but there is evidence that they can bite even at night in well-lit rooms. Generally, *Aedes aegypti* is an indoor biter while *Aedes albopictus* is an outdoor biter.

These mosquitoes can fly horizontally for a distance up to 100 to 200 meters and vertically up to several floors in high-rise buildings. *Aedes aegypti* primarily rests inside houses or buildings in dark and humid surroundings including curtains, mosquito nets and clothing, as well as on undersurface of furniture such as tables, chairs, desks and beds. *Aedes albopictus* generally rests outdoors in vegetation and in other hidden places.

These vectors are container breeders and their most common breeding sites are discarded containers, tyres, water storage tanks and barrels.

The disease spectrum of dengue

Dengue causes a wide spectrum of disease. This ranges from asymptomatic disease to the severe form of dengue: dengue haemorrhagic fever (DHF). An individual contracting dengue for the second time is more likely to develop severe complications of DHF. Therefore, seeking early medical advice for prompt diagnosis and close monitoring throughout the illness is very important.

In the absence of specific antiviral therapy as a specific treatment for dengue or an effective vaccine for public health use for the prevention of the disease, control of transmission of dengue by vector (mosquito) management is the sole method available for decreasing dengue-associated morbidity and mortality.

Integrated Vector Management (IVM) is recommended in the control of *Aedes* mosquitoes. This IVM focuses mainly on changing the environment inorder to prevent or minimize vector propagation and human contact with the vector-pathogen by source reduction and, using biological and chemical methods for the control of Aedes mosquito larvae. In addition to this, collaboration with all relevant sectors such as the Presidential Task Force (PTF), ministries in the subjects of Health, Education, Local Government, Environment, Public Administration, Construction, and NGOs, CBOs, etc. and, law enforcement for prevention and control of dengue, are also considered as important. Implementation of innovative research such as the Wolbachia Project and the Sterile Male Mosquito techniques, also play a role in dengue control and prevention by means of preventing dengue virus transmission by the vector.

Since vector control strategies alone have not been able to achieve sustainable reduction in viral transmission, the implementation of a safe, efficacious, and cost-effective dengue vaccine is important. The first ever dengue vaccine, Dengvaxia (CYD-TDV) by Sanofi Pasteur, was registered in several countries for use among previously dengue infected individuals 9-45 years of age. QDENGA (TAK-003) by Takeda is the second dengue vaccine released into the market. The World Health Organization recommend it's use for 6-16 years old children in high dengue disease burden and high disease transmission settings. Both vaccines are not registered in Sri Lanka. Therefore no dengue vaccine is available in the Sri Lankan market yet.

Situation analysis in 2023/2024

We have been successful in reducing the case fatality rate (CFR) from 0.99% in 2009 to 0.12% by 2020 and were able to maintain it below 0.1% since then up to now, even during the large outbreak in 2023 with a case load of 89,799. In 2023, almost 45% of all dengue cases were reported from the Western Province. This includes 21.1% in Colombo, 18.0% in Gampaha and 5.8% in Kalutara districts. Kandy (10.3%), Jaffna (4.8%), Puttalam (4.7%), Galle (4.5%), and Kegalle (4.0%), were the other districts that mainly contributed to the caseload in 2023 (Fig:3).

In the Jaffna District a significant escalation of case reporting was observed, in December 2023 which continued through to January 2024 contributing to 16.0% & 22.8% of the total cases in each month respectively.

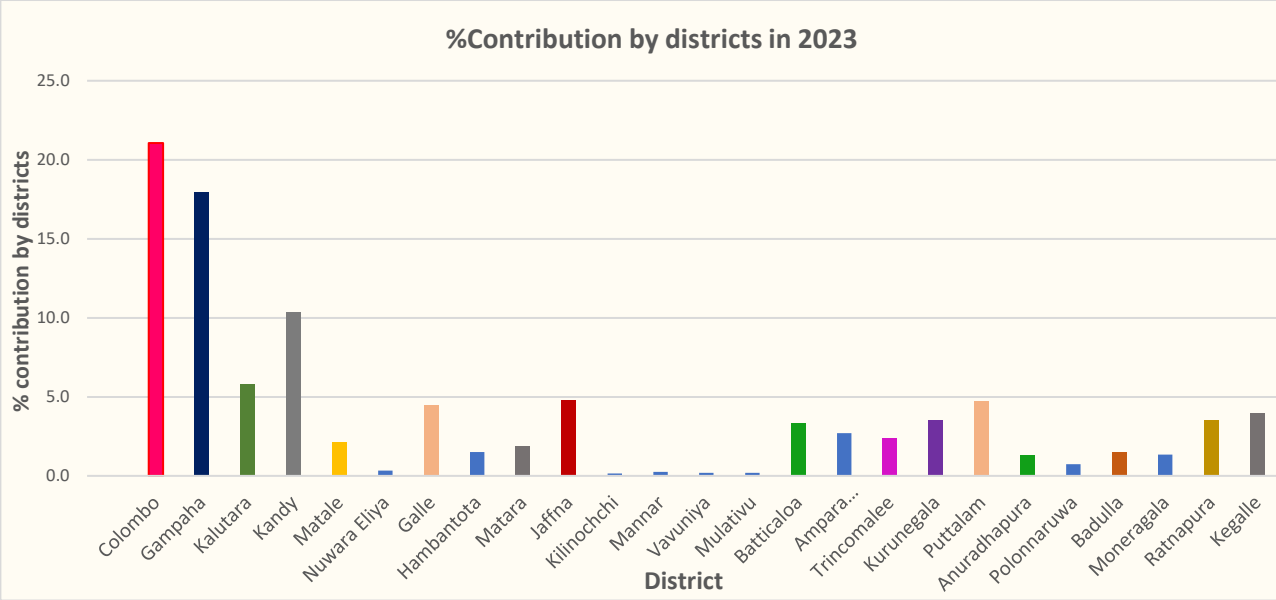

Figure 3: Percentage contribution of dengue cases by districts in 2023

Your responsibility for a dengue free Sri Lanka

To achieve a dengue-free Sri Lanka, it is crucial for every citizen to take active responsibility in preventing the spread of the disease. Here's a comprehensive way forward outlining the responsibilities of the people:

1. Education and awareness: Individuals should educate themselves and their communities about dengue fever, its symptoms, transmission, and preventive measures. They can organize community awareness programs, distribute informational leaflets, and utilize social media platforms to spread awareness.
2. Eliminate breeding sites: Every individual should regularly inspect their surroundings for potential mosquito breeding sites such as stagnant water in containers, discarded tires, and uncovered water tanks. It is imperative to empty, clean, or cover these containers to prevent mosquitoes from breeding.
3. Maintain cleanliness: Keeping the environment clean is crucial in preventing dengue fever. Individuals should dispose of solid waste properly, avoid littering, and ensure that garbage is collected and disposed of regularly.
4. Personal protection: People should protect themselves from mosquito bites by wearing long-sleeved clothing, using mosquito repellents, and sleeping under mosquito nets, especially during peak mosquito activity times such as dawn and dusk.

5. Seek medical attention: Individuals experiencing symptoms of dengue fever such as high fever, severe headache, pain behind the eyes, joint and muscle pain, and rash should seek medical attention immediately. Early diagnosis and treatment can prevent complications.
6. Community participation: Communities should come together to organize regular clean-up campaigns to remove potential breeding sites for mosquitoes. Community leaders can mobilize resources and coordinate efforts to ensure the cleanliness of public spaces.
7. Collaboration with authorities: Individuals should cooperate with local health authorities and participate in dengue prevention programs initiated by the government. They should report suspected cases of dengue fever to the authorities promptly to facilitate timely intervention and control measures.
8. Regular maintenance: Individuals should ensure that their surroundings are regularly maintained to prevent the accumulation of water and debris, which can serve as breeding grounds for mosquitoes. This includes cleaning gutters, drains, and water storage containers regularly.
9. Continued vigilance: Dengue prevention is an ongoing effort that requires vigilance even during non-peak seasons. Individuals should remain vigilant throughout the year and continue practicing preventive measures to keep their communities dengue-free.
10. Promote community responsibility: Encourage a culture of responsibility within communities where everyone takes ownership of maintaining a dengue-free environment. By working together and supporting each other, communities can effectively prevent the spread of dengue fever.

As mentioned above, dengue is a complex disease which causes a substantial impact on an individual, community and country's wellbeing. However, with a combined, proactive, and evidence-based approach we would still be able to reduce the disease burden and prevent mortality due to this disease.

Why Animal Welfare is Important to Humans?

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Deputy Director (Livestock Planning)
Livestock Division
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Animal welfare is a multidimensional concept that involves a holistic approach to caring for animals and recognizing their sentience and responsibilities humans have towards them.

This includes the well-being of animals, encompassing both their physical and mental states. It involves ensuring that animals are treated humanely and provided with appropriate living conditions, adequate nutrition, and medical care. The goal of animal welfare is to promote a good quality of life for animals, acknowledging their intrinsic value and the importance of treating them with compassion and respect.

Animal welfare is a broad and evolving field that involves the consideration of ethical, scientific, and cultural perspectives. It is important to strike a balance between human interests and the well-being of animals to create a harmonious co-existence.

There are key principles and indicators of animal welfare called the "Five Freedoms". These principles were first proposed by the Brambell Committee in the United Kingdom in 1965 and have since become widely accepted as a framework for assessing and improving animal welfare.

The Five Freedoms are:

1. Freedom from hunger and thirst
2. Freedom from discomfort
3. Freedom from pain, injury or disease
4. Freedom to express normal behavior
5. Freedom from fear and distress

Animal welfare is important to humans for several reasons, reflecting ethical, societal, economic, and public health considerations. Here are some key reasons why animal welfare matters to humans:

1. Disease transmission

Animal welfare is crucial in preventing the spread of zoonotic diseases. Zoonotic diseases are the diseases transmitted between animals and humans. There are many zoonotic diseases present in the world and some of these diseases are fatal to humans. Most of the diseases are transmitted by direct contact of the animals. Proper animal welfare practices, including disease prevention and control and proper measures for housing and hygiene are crucial in minimizing the risk of zoonotic disease transmission.

This is particularly important in settings where humans and animals closely interact such as farms, markets and households. Proper health care, proper hygiene for animals and proper housing for animals will reduce the disease risk in animals.

2. Anti-microbial resistance (AMR)

When animals are not provided with welfare, they are prone to disease conditions specially the infectious diseases. In food animals if the animals are prone to diseases, antibiotics are used as therapeutics as well as preventive medications. Overuse of antibiotics can contribute to antibiotic resistance, posing a threat to both animal and human health. Antibiotic resistance is a global threat to human health and promotion of good animal welfare can minimize usage of antibiotics. When the animals are stressed, they are more prone to get diseases frequently. Therefore, good animal welfare contributes to production of safe and disease free, animal products.

3. Environmental impact

Animal welfare practices that promote sustainable and humane treatment of animals also contribute to environmental health. Sustainable practices in agriculture such as rotational grazing and proper waste management align with the one health concept which minimizes environmental impacts and promotes ecosystems in health. Proper animal welfare practices can optimize resource utilization and may lead to more efficient use of land, water and feed resources and reduces the environmental foot prints. Animals are an integral part of ecosystems, contributing to biodiversity and ecological balance. Livestock, particularly ruminants like cattle, contribute to greenhouse gas emission through the release of methane. Animal welfare practices that improve feed efficiency and reduce stress may help to lower the emission of gas, contributing to climate change mitigation. The well-being of animals is crucial for the health and sustainability of the natural environment, which ultimately affects human welfare.

4. Companionship and Emotional Support

Animals, especially pets, can provide emotional support and companionship to humans. The bond between humans and animals has been shown to have a positive effect on mental health, reducing stress, anxiety, loneliness and overall public mental well-being. When the animals are happy with their owners, they provide better companionship to their owners.

5. Food Security

Proper animal welfare practices contribute to the overall health and wellbeing of livestock. Healthy animals are more productive in terms of growth, reproduction, milk and egg production. This directly influences the quality and the quantity of animal products available for human consumption.

It is important to provide proper animal welfare during the slaughter process to obtain good quality meat from animals. This intersection of animal welfare and food security aligns with the broader one health goal of ensuring access to safe and sufficient food for human consumption. Adopting ethical and humane practices in animal farming contributes to the availability, safety and diversity of animal products, ultimately enhancing the food security for communities and populations. Consumer preference in the safety and ethical production of animal products is essential for food security. Practices that prioritize animal welfare, contribute to building trust among consumers and also ensures sustained demand for animal products.

6. Education and Empathy

Mahathma Gandhi once said the "Greatness of a nation and its moral progress can be judged by the way its animals are treated". Encouraging empathy and compassion towards animals can contribute to the development of a caring and responsible society. Teaching respect for all living beings may lead to positive changes in human behavior.

In summary, the relationship between animal welfare and human welfare is multifaceted. Promoting and ensuring the well-being of animals is not only a moral imperative but also directly impacts human health, food security, environmental sustainability, economic stability, and overall quality of life of humans. Recognizing and addressing the welfare of animals is essential for building a more compassionate, sustainable and interconnected world.

President's Message

Dear Section A members of the Sri Lanka Association for the Advancement of Science (SLAAS),

It is with utmost humility, gratitude and honour that I pen these words as the president of Section A SLAAS for the year 2024. For the past 80 years SLAAS has been the premier scientific body in the country representing almost all disciplines of science. Section A, comprising medical, veterinary dental and the allied health science professionals has no doubt been a strong arm of SLAAS throughout. It is indeed a privilege and honour to lead such a distinguished scientific body, Section A, for the year 2024.

In line with the vision of SLAAS, which is "to be a scientifically advanced nation" and the mission of SLAAS, which is "to promote, support and foster scientific endeavour and technological innovation in an ethical, humane and sustainable manner for the benefit of the people of Sri Lanka", Section A has this year too, as in the past, organised an array of activities. I am happy to say, that the committee of 2024 has achieved considerable success in the first quarter of the year, through a diverse range of activities. I am ever so grateful to the committed and dedicated committee for 2024. I am indeed blessed to have such a dedicated team!

Science influences public policy, energy conservation, agriculture, health, transportation, communication, defence, economics, leisure and exploration. It is almost impossible to overstate how many aspects of modern life are impacted by scientific knowledge. It is of utmost importance therefore that all sciences are harnessed in-order to transform society, as societal transformation for the better, is the aim of every scientist. How fitting then is the theme of SLAAS for 2024; "Harnessing the power of sciences for societal transformation!"

As your president, I'm continually inspired by the dedication and passion each of you bring to the noble pursuit of scientific progress and change in Sri Lanka. Through your research, education, and outreach efforts, we collectively illuminate the path towards a brighter future for our nation.

However, in this ever-evolving scientific landscape, it is crucial to remember the core principles that guided our association since its inception: honesty, integrity, and ethical conduct. These values are not mere words; they are the bedrock upon which all credible scientific discovery rests.

Every experiment, every analysis, every conclusion we present to the world carries the weight of our collective reputation. Transparency and meticulous attention to detail are of paramount importance. We all must uphold ourselves together to the highest ethical standards.

However, our commitment to these principles extends beyond the confines of the laboratory. As scientists, we interact with a vast network of individuals – students, educators, policymakers, health care workers and the general public. In every encounter, let us always remember and never forget the humanity that binds us all. Let our communication be clear, respectful, humane and inclusive.

By fostering a culture of scientific integrity and treating everyone we meet with dignity, we not only strengthen the foundation of our own work, but also inspire the next generation of scientific minds.

However, our mission does not stop there. As said in our theme for 2024, we must strive to harness the power of science, for societal transformation. Our discoveries have the potential to revolutionize healthcare, agriculture, sustainability, and countless other aspects of Sri Lankan life. Let us actively explore ways to translate our knowledge into tangible improvements for every individual.

This year is extra special as we celebrate the 80th anniversary of SLAAS. It has been a long and memorable journey of 80 years, transforming society through the harnessing of sciences by this premier association which we have all come to love so much. Together, therefore, let us continue to be a beacon of scientific excellence in Sri Lanka, disseminating knowledge with honesty, integrity, and a deep respect for our fellow human beings and as we strive to transform society with the power of science, let us never forget the ethical principles and humaneness that guide our journey. Let us all be instrumental in taking SLAAS in the years to come, to achieve a century of excellence in the near future!

With warmest regards,

Dushyanthi Jayawardene

Section A Committee Members- 2024

Seated (L to R):

Dr. KRM Chandrathilaka (Rapporteur), Dr. Jeewani Dahanayake (Vice President), Dr. Dushyanthi Jayawardene (President), Dr. Yasaswi Walpita (Secretary)

Standing (L to R):

Dr. Thilina Wanigasekara, Mrs. Namalie Thakshila Adikari, Dr. Amirthavarshini Rajaganesh, Dr. Rasika Ekanayake, Dr. S. M. D.Nirmala P. Senaratna, Dr. Harshadhi Chamari Kannangara

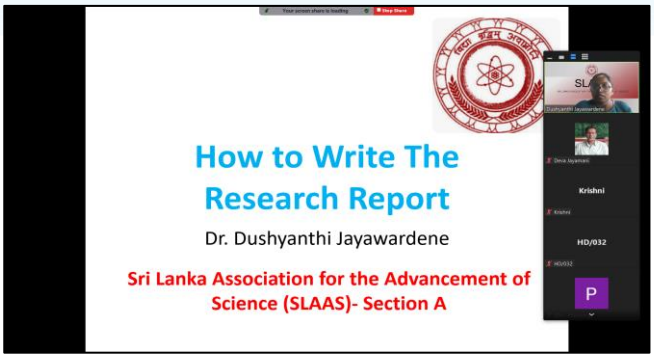
List of activities of SLAAS Section A from January to March 2024

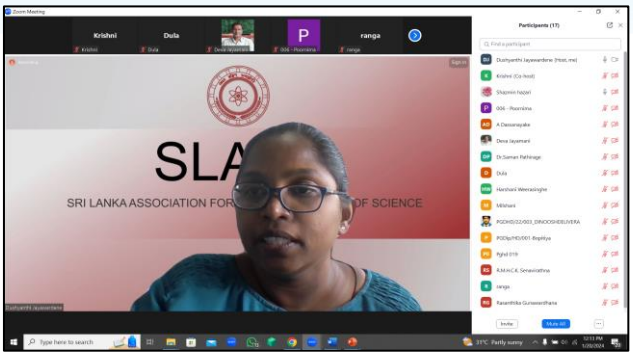
January 2024	
Date	**Activity**
20th January 2024	A Research methodology webinar was conducted for postgraduate students following research degrees in Faculty of Medicine, University of Colombo (UCFM) from 9 am to 12 noon. The resource persons were Dr Yasaswi Walpita who delivered a session on "Aligning Research findings and Objectives" and Dr Dushyanthi Jayawardene who delivered a session on " How to compile the research report". The workshop was attended by 20 postgraduate students. **Activity coordinator: Dr. Yasaswi Walpita**
24th January 2024	A live TV discussion was carried out by Dr Jeewani Dahanayake on "Medicinal Plants the Cure" on Shradha TV from 10 am -10.30 am. **Activity coordinator: Dr. Jeewani Dahanayake**
30th January 2024	A dental screening programme and an oral health awareness programme was conducted in collaboration with the Colombo Public Library. It was conducted at the Colombo Public Library from 9.30 am to 12.30 pm with Dr. Nilantha Rathnayake, Dr Rasika Ekanayake and Dr Amirthavarshini Sriskanthan as the resource persons. The programme was well attended by the public with around 40 attendees. **Activity coordinators: Dr Rasika Ekanayake, Dr Amirthavarshini Sriskanthan, and Dr Dushyanthi Jayawardene**
30th January 2024	A live discussion on the topic "Physiotherapy for Healthy Living" was carried out by Dr KRM Chandrathileke on the programme "Aadaraneeya Jeevithaya" on Siyatha TV from 9 am -9.30 am . **Activity coordinator: Dr Dushyanthi Jayawardene**
February 2024	
Date	**Activity**
6th February 2024	A cancer awareness programme was conducted in collaboration with the Colombo Public Library and the National Cancer Control Programme Sri Lanka at the Colombo Public Library from 10 am – 12 noon with Dr Dulanjali Laxamana from the National Cancer Control Unit as the resource person. Booklets/leaflets and posters were also distributed to the public who attended. The programme was well attended by the public with around 50 attendees. **Activity coordinator: Dr Dushyanthi Jayawardene**
15th and 16th February 2024	Two research methodology webinars were conducted for postgraduate students following research degrees in the Wayamba University from 7pm-9.30 pm each day. The resource person for both sessions was Dr. Dushyanthi Jayawardene Senior Lecturer, Department of Community Medicine, Colombo, who delivered a session on "How to write a successful research proposal" and "Ethical Issues in Research" respectively in the two webinars. The workshops were attended by 50 postgraduate students on each occasion. **Activity coordinator: Dr. Thakshila Adikari**
20th February 2024	A lunch time talk on "STD in Health Care" was conducted in collaboration with the Auyrvedha Teaching Hospital Borella at the auditorium, National Ayurvedha Teaching Hospital Borella from 12.15 pm-1.30 pm, with Dr Nalaka Kulatunga, Registrar in Venereology from the Central STD Clinic Colombo as a resource person. There were around 50 participants. **Activity coordinators: Dr. Nirmala Senaratna, Dr. Jeewani Dahanayake, Dr Dushyanthi Jayawardene**
29th February 2024	A webinar on Leptospirosis was conducted with Dr Thushani Dabrera, Consultant Community Physician, Focal Point for Leptospirosis Prevention and Control, Epidemiology Unit, Colombo as the resource person from 12pm -1pm. There were 35 participants. **Activity coordinator: Dr. Yasaswi Walpita**

March 2024	
Date	**Activity**
06th March 2024	A radio programme was conducted on ”Ayurvedic Treatment for Uterine Conditions” by Dr. Nirmala Senaratna for the Suwasetha programme on Swadeshiya Sewaya Radio channel from 1.25 pm -1.55 pm. **Activity coordinator: Dr. Nirmala Senaratne**
14th March 2024	A lunch time talk on “Work Life Balance of Women in the Health Sector” was conducted in collaboration with the Auyrvedha Teaching Hospital Borella at the auditorium, National Ayurvedha Teaching Hospital Borella, with Dr Kaumadi Karunagoda, Consultant in Sthree Roga Prasuthithanthra and Senior Lecturer from the Faculty of Indigenous Medicine the resource person. There were around 50 participants. **Activity coordinators: Dr. Nirmala Senaratna, and Dr. Jeewani Dahanayake**
20th March 2024	A webinar on “Forge Ahead; Shed the Weight. Obesity; How do we tackle it?” was conducted with Dr Lushanthi Kannangara, Consultant Physician in Elderly Medicine, Dementia and Delirium Lead, Northampton General Hospital, Northampton as the resource person. There were 30 participants. **Activity coordinator:** Dr Chamari Kannangara
26th March 2024	A webinar on Malaria was conducted from 12.00-1pm with Dr Pubudu Chulasiri, Consultant Community Physician, Anti Malaria Campaign, Colombo as the resource person. There were 30 participants. **Activity coordinator:** Dr Dushyanthi Jayawardene
28th March 2024	A physiotherapy awareness programme along with a practice session was conducted in collaboration with the Colombo Public Library at the Colombo Public Library with Dr Asha Wettasinghe, Senior Lecturer, Department of Allied health Sciences and Dr KRM Chandarthilaka, Lecturer, Department of Allied Health Sciences , Faculty of Medicine, University of Colombo as the resource persons. The programme was well attended by the public with around 40 attendees. **Activity coordinators**: **Dr. KRM Chandrathilaka, and Dr. Dushyanthi Jayawardene**
March 2024	The following articles were received for publication in the January-April Volume of the SLAAS Section A newsletter. 1. “Epidemiology of the Current Measles Outbreak in Sri Lanka and Mitigation Measures” by Epidemiology Unit, Ministry of Health **Activity coordinator: Dr Dushyanthi Jayawardene** 2. “Dengue” by Dr. Ashani C. Hewage, Medical Officer, National Dengue Control Unit **Activity coordinator: Dr Dushyanthi Jayawardene** 3. “Why Animal Welfare is important to humans” by Dr. Harshadhi Chamari Kannangara, Deputy Director (Livestock Planning), Livestock Division, Ministry of Agriculture and Plantation Industries **Activity coordinator: Dr Chamari Kannangara**

Events in January 2024

Research methodology webinar conducted for postgraduate students following research degrees in Faculty of Medicine, University of Colombo





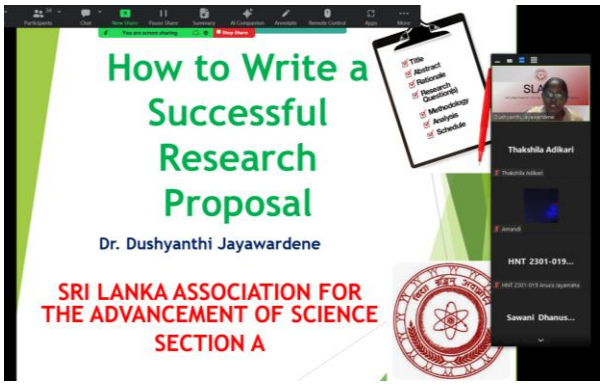
Dental screening programme for both adults and children and an oral health awareness programme conducted in collaboration with the Colombo Public Library

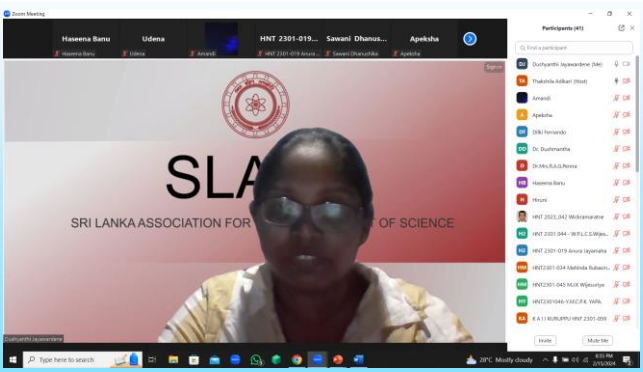
TV discussion on "Medicinal Plants the Cure"

TV discussion on "Physiotherapy for Healthy Living"

Events in February 2024

Research methodology webinars for postgraduate students following research degrees in the Wayamba University

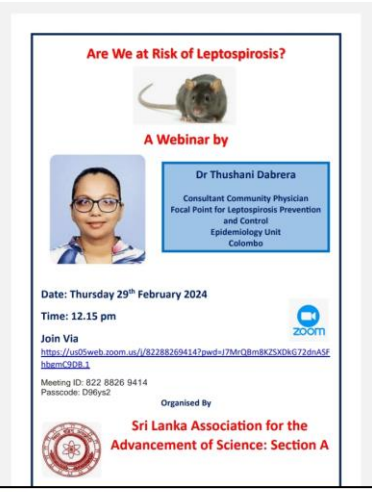


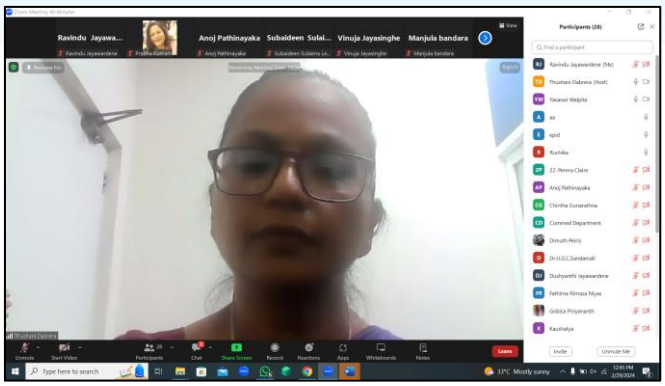


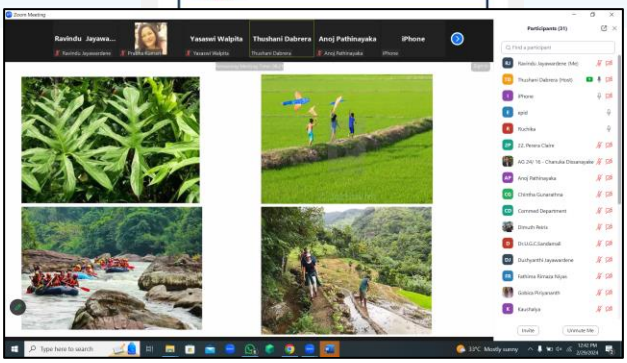
Cancer awareness programme conducted in collaboration with the Colombo Public Library and the National Cancer Control Programme Sri Lanka

Lunch time talk on "STD in Health Care" conducted in collaboration with the Auyrvedha Teaching Hospital

Webinar on “Leptospirosis”

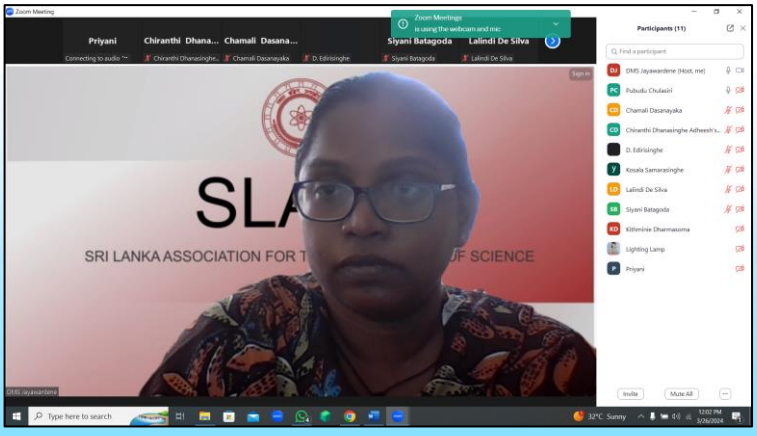


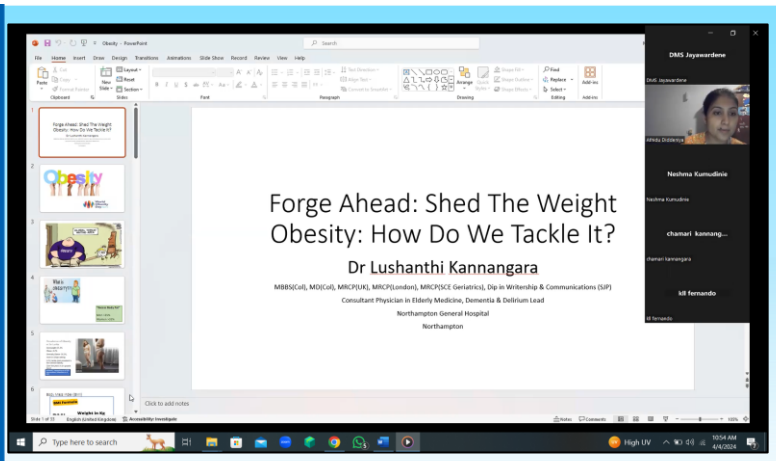


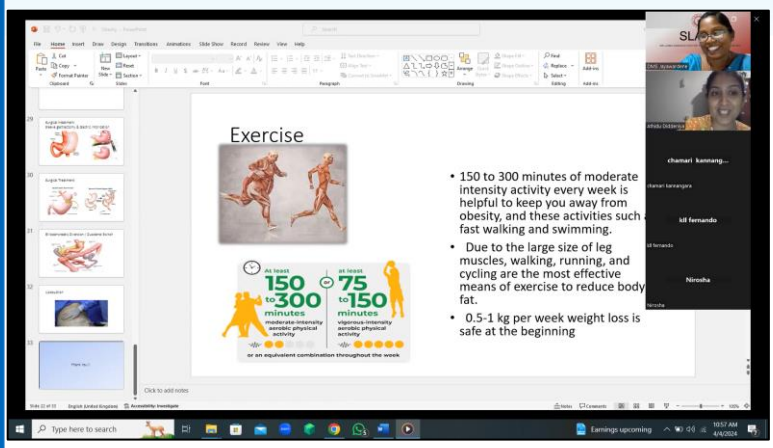


Events in March 2024

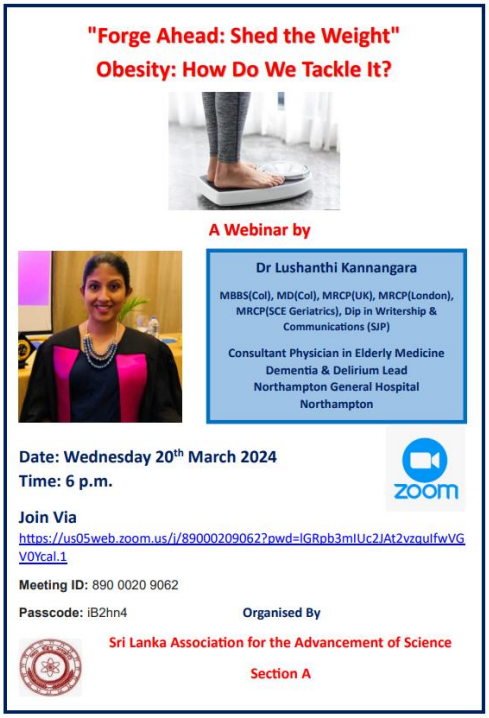
Webinar on “Malaria”



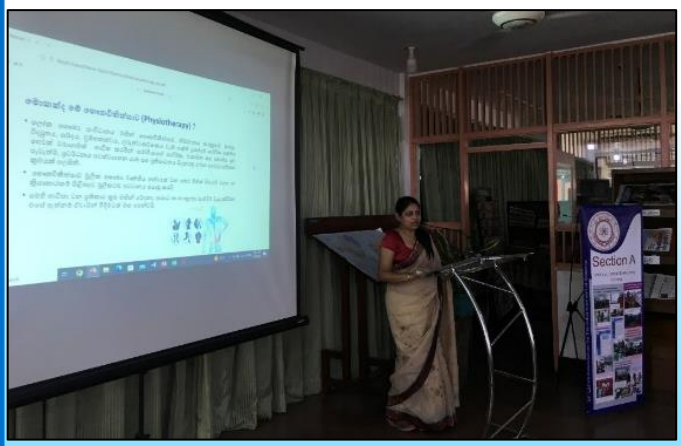




Webinar on "Forge Ahead; Shed the Weight. Obesity; How do we tackle it?"



Physiotherapy awareness programme along with a practice session conducted in collaboration with the Colombo Public Library at the Colombo Public Library



Lunch time talk on "Work Life Balance of Women in the Health Sector" conducted in collaboration with the Auyrvedha Teaching Hospital

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