# IPHA MAHARASHTRA BRANCH Volume 15 Issue 02: APR-JUN 2023 Newsletter

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# Time to deliver zero malaria: invest, innovate, implement

(From WHO Websites)

This year World Malaria Day: 25<sup>th</sup> April, is marked under the theme Time to deliver zero malaria: invest, innovate, implement'. Within this theme, WHO focuses on the third 'i' – implement and notably the critical importance of reaching marginalized populations with the tools and strategies that are available.

WHO's World malaria report 2022 tracks investments in malaria programmes and research as well as progress across all intervention areas: prevention, diagnosis, treatment, elimination and surveillance. Based on information received from 84 malaria-endemic countries the global tally of malaria cases reached 247 million in 2021.

"We have the tools to drive down malaria, a package of interventions that includes vector control, preventive medicines, testing, and treatment, these are joined by a safe and effective malaria vaccine. With sustained investment and scaled-up efforts to reach those most at risk, malaria elimination in many countries is in reach."

- Dr Tedros Adhanom Ghebreyesus Director-General WHO

In 2021, 1.7% of global cases and 1.2% of global deaths occurred in India and these are 79% of all malaria cases in WHO South East Asia region. However, compared to 2015 situation there is 85% decline in cases and 83% decline in deaths.

"Primary Health Care is the most inclusive, equitable and the cost-effective way to achieve Universal Health Coverage & eliminate Malaria."

- Dr Roderico H. Ofrin WHO Representative, India

In 2021, Following a 70year effort, China has been awarded, malaria-free certification

from WHO - a notable feat for a country that reported 30 million cases of the disease annually in the 1940s. Effective multi-sector collaboration was also key to success. In 2010, 13 ministries in China - including those representing health, education, finance, research and science, development, public security, the army, police, commerce, industry and information technology, customs, media and tourism - joined forces to end malaria nationwide. The country further reduced its malaria caseload through a strict adherence to the timelines of the "1-3-7" strategy. The "1" signifies the one-day deadline for health facilities to report a malaria diagnosis; by the end of day 3, health authorities are required to confirm a case and determine the risk of spread; and, within 7 days, appropriate measures must be taken to prevent further spread of the disease.

In 2021, 35 countries reported fewer than 1000 indigenous cases of the disease. Countries that have achieved at least 3 consecutive years of zero indigenous cases of malaria are eligible to apply for the WHO certification of malaria elimination

Malaria elimination is defined as the interruption of local transmission of a specified malaria parasite species in a defined geographical area as a result of deliberate activities. Continued measures to prevent re-establishment of transmission are required.

Since 2015, 9 countries have been certified by the WHO Director-General as malaria-free, including Maldives (2015), Sri Lanka (2016), Kyrgyzstan (2016), Paraguay (2018), Uzbekistan (2018), Argentina (2019), Algeria (2019), China (2021) and El Salvador (2021).

India has set the Goal of Zero indigenous Malaria Cases by 2027. Let's strive to achieve it!!

#### ARTIFICIAL INTELLIGENCE IN PUBLIC HEALTH

**Editorial** 

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#### **Dr Muralidhar Tambe**

Vice-President (West) - IPHA, Past-President - IPHA Maharashtra
Professor & Head, Department of Community Medicine, B. J. Government Medical College, Pune

Knowingly or unknowingly, we have been using Artificial Intelligence in our day-today life across industries and sectors, including healthcare, finance, transportation, education, and entertainment. AI helps us to enhance productivity, improve decision-making, and solve complex problems.

#### What is Artificial Intelligence?

Artificial Intelligence (AI), refers to the development and use of computer systems that can perform tasks that typically require human intelligence. AI aims to develop intelligent systems that mimic surpass human or intelligence in areas such as problemsolving, decision-making, perception, language understanding. involves the creation of algorithms and models that enable computers to learn from data, reason, perceive their environment, and make decisions or take actions to achieve specific goals.

AI includes machine learning, learning, natural language processing, computer vision, robotics, and expert systems which enable AI systems to process and analyze large amounts of data, recognize patterns, make predictions or recommendations based on the acquired knowledge.

AI has the potential to revolutionize public health by enabling more accurate and efficient disease surveillance, diagnosis, treatment, and prevention. Here are some key areas where AI is being applied in public health:

#### • Disease surveillance:

Al can analyze large volumes of data from various sources, such as social media, electronic health records, and wearable devices, to detect patterns and trends related to disease outbreaks. It can help public health agencies identify and respond to potential epidemics more quickly. ☆

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#### • Diagnostics:

AI algorithms can aid in interpretation of medical images such as X-rays, CT scans, and MRIs. and pathology slides. AI can improve the accuracy and speed of diagnosis, particularly in regions where there is a shortage of skilled radiologists. Machine learning models can learn from large datasets, aid in detection of diseases like cancer, tuberculosis, and diabetic retinopathy with high accuracy.

# • Telemedicine and remote monitoring:

AI can support telemedicine initiatives in India by providing automated triage, remote monitoring of patients' vital signs, and analysis of patient-reported symptoms. This can help extend healthcare services to underserved areas and improve access to healthcare in rural and remote regions.

#### • Drug discovery and development:

AI can analyze vast amounts of biomedical data and identify potential drug candidates. Machine learning algorithms can also predict the efficacy and safety of drug compounds, thereby reducing the time and cost involved in preclinical clinical trials. Thus, pharmaceutical companies in India have a lot to benefit from AI in identifying potential new drugs and streamlining development process.

#### • Personalized medicine:

AI can analyze an individual's health data, genetic information, treatment

history and lifestyle factors provide personalized treatment recommendations. AI can predict disease risk, determine optimal treatment options, and optimize drug dosages for better patient outcomes. This can help healthcare providers in India optimize treatment plans, improve patient outcomes, and reduce healthcare costs.

#### • Health behaviour monitoring:

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AI-powered wearables and mobile apps can monitor individuals' health behaviors, such as physical activity, sleep patterns, and nutrition which can provide personalized recommendations and interventions to promote healthier lifestyles and prevent chronic diseases.

# Outbreak prediction and modeling:

AI algorithms can analyze various data sources, including climate data, population movements, healthcare utilization patterns, to predict and model disease outbreaks. This can help public health authorities in India respond quickly and effectively to prevent the spread of diseases. Thus, it can help in allocating resources, planning interventions, and mitigating the impact of outbreaks.

# • Public health planning and resource allocation:

Al can aid in allocation of public health resources, such as vaccines, healthcare providers, and medical supplies. Al can help identify areas with the greatest need and allocate resources accordingly by analyzing data on population demographics, disease prevalence, and healthcare utilization.

#### • Health workforce support:

Al can assist healthcare professionals by providing decision support tools, automating administrative tasks, and facilitating clinical documentation.

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#### • Health education and awareness:

AI-powered chatbots and virtual assistants can deliver personalized health education and answer common health-related queries. This can help improve health literacy and empower individuals to make informed decisions their about health.

# What is the role of AI in various aspects of the COVID-19 pandemic response?

#### • Diagnosis and screening:

Al algorithms have been developed to assist in the diagnosis of COVID-19. These algorithms can analyze medical imaging, such as chest X-rays and CT scans, to detect COVID-19-related patterns and aid in early identification and screening.

# Epidemiological modeling and forecasting:

Al techniques have been employed to analyze large amounts of data, including infection rates, mobility patterns, and social media trends, to create epidemiological models and forecast the spread of COVID-19. These models can help policymakers and healthcare systems make informed decisions about resource allocation and mitigation strategies.

#### • Drug discovery and development:

AI has been used in the search for potential treatments and drug repurposing COVID-19. for ΑI algorithms can analyze vast databases of existing drugs and identify candidates that may be effective against the virus. Additionally, AI-powered simulations and molecular modeling have been employed to accelerate the design of new antiviral drugs.

# Vaccine development and distribution:

AI has played a role in the development and optimization of COVID-19 vaccines. AI techniques

have been utilized to analyze protein structures, predict antigenicity, and optimize vaccine formulations. AI has also been used in vaccine distribution planning, helping identify priority populations and optimal allocation strategies.

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#### • Contact tracing and surveillance:

AI has supported contact tracing efforts by analyzing diverse data sources such as mobile phone data, GPS tracking, and social media data to identify potential contacts and monitor compliance with public health guidelines. AI-powered systems can enhance speed and accuracy of contact tracing processes.

• Remote monitoring/telemedicine: AI-enabled remote monitoring solutions have been employed to monitor COVID-19 patients and individuals in quarantine. These solutions can remotely collect vital signs, symptoms, and other health data, allowing healthcare providers to monitor patients' conditions and provide timely interventions.

# Misinformation detection and fact-checking:

AI-powered algorithms can analyze news articles, social media posts, and online content to identify false or misleading information, aiding in the dissemination of accurate and reliable information.

#### Robotics and automation:

AI-powered robots have been used in various healthcare settings to minimize human contact and reduce the risk of transmission. Robots can perform tasks such as disinfection, delivery of medical supplies, and patient monitoring, enhancing safety for healthcare workers and patients.

### What are the challenges in use of AI in Public Health?

While AI holds great promise in public health, there are challenges to address.

#### • Inaccurate or biased algorithms:

There is a need for AI algorithms to be designed to minimize bias and ensure equitable healthcare outcomes for a vast country like India with diverse populations. The health care professionals are to be trained with AI algorithms on diverse representative datasets minimize bias. AI systems are only as good as the data they are trained on. If the training data is incomplete, biased, or unrepresentative, the AI algorithms may produce inaccurate biased results, leading diagnoses, incorrect treatment recommendations, or public health interventions. Regular audits and ongoing monitoring of algorithms can help identify and address bias. Additionally, involving diverse stakeholders and experts in the development process can contribute to more equitable outcomes.

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#### • Ethical implications:

These include transparency, fairness, accountability & informed consent. Public health agencies researchers should establish clear guidelines and regulations for AI use, conduct regular audits, and continuously evaluate and address potential biases and unintended consequences. Public health agencies and researchers are actively working on data anonymization, encryption, access controls, and compliance with relevant regulations. harness the full potential of AI in public health, it is essential to address challenges such as data privacy, ethics, equity, and workforce readiness.

#### Integrating AI technologies into existing healthcare systems and workflows:

These include resistance to change, technical integration, data interoperability, and the need for rethinking workflows. At the same time, there are opportunities that include increased efficiency, improved decision-making, and better patient outcomes through AI-

assisted diagnosis, treatment, and public health planning.

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#### Lack of human judgment and expertise:

AI is designed to automate processes make decisions based patterns and algorithms. However, certain there are aspects that require healthcare human judgment, intuition, and expertise. Over-reliance on AI may diminish the role of healthcare professionals, leading to the potential loss of oversight critical human and decision-making.

· Potential for algorithmic errors, and the need for human oversight: limitations Addressing these requires rigorous data collection, transparency algorithmic in decision-making, ongoing evaluation, collaboration between systems and human experts. AI may change the roles and responsibilities healthcare professionals. Preparing the workforce involves training healthcare professionals to effectively use AI tools, developing new skill sets such as data analysis and interpretation, and fostering collaboration between AI systems and human experts for optimal patient care.

Collaboration between public health healthcare providers, agencies, researchers, and technology experts will crucial effective he for implementation and ensuring that AI interventions are tailored to the specific needs and contexts of India's diverse population. Implementing AI in India's national health system requires consideration of the specific needs and challenges of the Indian healthcare landscape.

# Pitfalls of over-reliance on AI in public health:

It can pose several dangers. It's important to consider and address these risks:

 Dependency and system failures: Over-reliance on AI can create a dependency on technology that may lead system failures disruptions in the event of technical glitches, power outages, cyberattacks. It's important to have backup plans and redundant systems in place to ensure continuity of healthcare services and minimize the impact of AI system failures.

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- Systemic biases and health disparities: ΑI systems can inadvertently perpetuate existing biases and health disparities present in the data used for training. If historical biases or inequalities are embedded in the data, the AI algorithms may perpetuate or even exacerbate these biases, leading to unfair treatment and unequal health outcomes. It's crucial to address bias in data collection, develop diverse and representative training datasets, and regularly audit AI systems for bias and fairness.
- Social and economic implications: The widespread adoption of AI in public health can have socioeconomic implications. It may lead to job displacement and the need for workforce reskilling. Additionally, certain populations, particularly with limited access those technology or digital literacy, may face barriers in benefiting from AIdriven healthcare interventions. It's essential to consider the social and economic implications and ensure access equitable AI-enabled to healthcare solutions.

To mitigate these dangers, it's important to adopt a responsible and ethical approach to use of AI in public health. This includes robust data governance, algorithmic transparency, ongoing monitoring and validation, human oversight, addressing biases, and considering socio-economic impact to ensure that AI is deployed as a supportive tool that complements human expertise rather than replacing it.

# GREEN LIVING A HEALTHY LIVING FOR ENVIRONMENT AND MANKIND

Dr Jyoti Rao

Junior Resident, Community Medicine, Krishna Institute of Medical Sciences, Karad

Green living is a "lifestyle that strives to create balance in preserving and protecting earth's, natural resources, habitat, human civilization, and biodiversity. One easy way to make sure that the eco-trend continues is to always remember the '4R' of Green living in the order of priority as to Refuse, Reduce, Reuse And Recycle.

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Green skills of living are those that enables the environment sustainability of economic activities, the skills that contributes to reducing pollution, climate changes, health issues arising due to miss use, over use of natural resources and conserving natural resources.



Why do we need green living and how can environment friendly lifestyle pave the way to reduce climate change and create a better living environment for future generation?

Green living is a means of developing sustainable habit in one's daily life, so that the daily routine work alongside the resources of nature instead of depleting them, or doing more long-term damage to the environment or ecological system. Therefore, multitude of benefits -

#### Green living is economical.

The markets are full of ecofriendly products that are becoming cheaper, so if one decides Green living moment, it is likely that one can notice a decrease in their, typical spending habit. ☆

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# Promotes healthier life and way of living.

It will indirectly improve your diet and overall health by increased consumption of organic fruits and vegetables, which will provide us with sufficient amount of vitamins and nutrition to maintain our overall health and vital functioning in a world where fast food has become a norm and cost the human health, so green living can help to encourage better eating habits while also saving the plant.

# Contribute in natural resources preservation.

Green living motivates us to make use of what we already have generating rather than the resources and creating a burden on the environment by the famous 4Rs -Refuse, reduce, reuse and recycle. One of the popular example was the trend of kitchen gardening during pandemic, and refuse and recycling of already available resources at home due to the restrictions of going outside and it was observed that the basic requirement of goods and services reduced drastically, by the reuse and recycling methods, by doing so, it also helped in reduction of food wastage and excessive use of plastic packaging.

#### How can one have green living?

By choosing organic, locally sourced ingredients in the kitchen whenever possible, one can make a serious impact on the environment, making one's own kitchen garden save money as well as provide good air

quality, place plants around your home to not only improve the air quality but also save energy on cooling and heating and compost for kitchen waste will help to reduce the amount of household waste in landfills and reducing the costs associated with the collection of wastes, switch to biodegradable disposable bags. Become a more ethical beauty consumer. Makeup and beauty products are a big part of our lives...

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But how often do we really think about how the industry is affecting the environment? First, verify that none of the beauty brands you use test their products on animals, using either Leaping Bunny or PETA. Also check that your favorite brands aren't packed with toxic chemicals. Recycle or DIY your beauty empties. Along with recycling your cans and bottles, you should also make it a point to recycle your beauty products. Beauty and personal-care empties make up a significant amount of landfill waste.

Opt for e-receipts instead of paper copies – a ton of companies like CVS have started offering their customers e-receipts instead of wasteful (and easily lost) paper copies. Stop using straws at Cafeteria or any food outlet, it adds on to the plastic waste and not good for the ecosystem.

# Save Energy and Reduce Your Carbon Footprint -

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Unplug electronics even if they are turned off as they still continue to draw power. Laptops and smart devices are some of the worst offenders. Powerup with rechargeable batteries, choose devices that can be battery powered, such as a laptop over a desktop computer, as these are also things that can be recharged in the car and they often are more energy efficient.

Let the sun be your light, make good use of the sunshine during daylight hours and take the opportunity to leave lights off, save energy as well as it is a good source of vitamin D absorption.

Stop buying Products sold in plastic, incorporate walking or cycling to some of your regular short trip destinations. Uses of organic beddings, cotton linen usage accounts for almost thirty percent of the world's insecticide use, changing to organic cotton or bamboo is more sustainable and efficient.

If you are eco-conscious about your carbon footprint and the effects of driving activities have on the environment, then now may be the right time to switch from driving fossil fuel cars to driving an electric vehicle.





Hydrogen fuel cell vehicles are another feasible option. Hydrogen is a popular and highly innovative choice for gasoline that is helping to combat the consequences of global warming. You can use many other alternatives to fossil fuels which are greener and much cheaper than petrol.

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Collect the rainwater in tanks for use in bathrooms and garden is part of water use efficiency. Rainwater harvesting will help to reduce wastage of piped water, hence leading to sustainable living. Use solar or wind power, the two are renewable energy sources that are cheap and nonpolluting. If using wind energy plants for landscaping, it is necessary to use wind maps that can help to predict the mean annual wind speed in your location.

Sustainable living means that we live with the Earth's resources in mind, and that we use them responsibly so that future generations have the chance to live a healthy and prosperous life. It means that we should reduce our reliance on fossil fuels, and minimize our carbon footprint. We should use less energy, water, gas, electricity, or

any other resource to keep our home in balance. Sustainable living also means both individuals and businesses not over-using these resources for selfish goals such as economic gains. So essentially, the term "sustainable living" is an idea or belief about how to live more responsibly on this planet. It is often used interchangeably with "zero waste" although the meaning is slightly different.

Going green means environmentally friendly products and services & sustainability mean using products or services in a way that does not damage the future generations resources, the key difference between sustainable living and green living is that, sustainable living operates with all three sustainability pillars in mind (people, planet and profit), whereas green living focus solely on the environment. Green living and sustainable living grow hand-in-hand. If we combine both then it can make a huge impact on the health of mankind as well as the ecosystem.

It might seem difficult to adapt sustainable living as a lifestyle but people around the globe have proved it ☆

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otherwise - Newly married couple Prashant Lingam and Aruna Kappagantula were looking for ecofriendly furniture while setting up their house. This led them to start Bamboo House India in 2006. From building eco-friendly homes of bamboo footpaths from recycled plastic waste, the couple is promoting sustainable living and also providing employment to several farmers and artisans involved in the process. Today, Bamboo House India is seeing a turnover of Rs 2 crore.

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Another example of Hari and Asha's home sits in the middle of a mini forest that they have created. It is now home to birds, butterflies and animals, natural living has also benefited their the couple believes. health, haven't taken any medicines for the past 17 years. Good food and a policy of not interfering with the body, have kept diseases at bay, apart from the occasional cold and fever. "With some rest, liquids and fasting the body bounces back to full vigor." Hari and Asha decided they do not need a fridge, primarily because most of the food they consume comes directly from their land. Still, in order to create some kind of cool storage area, they dug up a square space in the kitchen, lined it with bricks and placed a mud pot inside. By filling sand around the pot and keeping it damp, the mud pot stays cool and keeps things fresh for a at least a week, they also use solar panels and their kitchen runs on biogas. All waste generated from the house, including latrine waste, is converted to biogas, their power consumption from the grid is as low as 4 units per month, while an average household uses a minimum of 50 units a month! "This doesn't mean we live a primitive life," says Hari. They have a TV, mixer grinder, computer, and other appliances like many normal urban households - they've just figured out smarter ways to generate and use energy.

While we can't all create a forest like Hari and Asha, there is perhaps

still a lesson or two in this story for us – of adopting simpler lifestyles that are gentle on the environment and unclutter our own existence too.

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There are many other various couple and people adopting ecosystem friendly lifestyle to maintain and preserve resources for upcoming generation and it proves that even a small efforts can create a huge difference.

#### Conclusion:

The journey to a greener life may begin in a single room or a small corner of your yard, but the ripple effect of these changes will inevitably be felt throughout the world. Whether it's incorporating plants into your living space, taking notice of eco-friendly practices at the market, or making the switch to an electric car, there are countless ways in which you can make a positive impact on the environment. Embracing green living tips and ideas is essential for cultivating an friendlier lifestyle. By making conscious effort reduce to our environmental impact, we can help protect the planet, preserve natural resources, and promote a healthier world for all. With every small change, we can make a significant difference in the fight against climate change and create a brighter future for future generations.

#### References:

- 1. https://greenly.earth/enus/blog/company-guide/what-isgreen-living
- 2. https://yourstory.com/socialstory/201 9/11/hyderabad-bamboo-house-indiarecycling-plastic-eco-friendly
- 3. https://www.thebetterindia.com/5738 9/energy-efficient-house-natural-farmmedicine-free-life-couple-live-lifeclosest-nature/
- 4. https://www.conserve-energyfuture.com/advantages\_disadvantages \_rainwater\_harvesting.php
- 5. https://www.greenlivingblog.org.uk/re asons-to-switch-from-fossil-fuel-to-electric-car/
- 6. https://www.greenhive.io/blog/greenliving

#### **Need for Home-based Health Care for Senior Citizens**

Dr Narendra Madhekar<sup>1</sup> Dr Gajanan Velhal<sup>2</sup>

<sup>1</sup>Professor <sup>2</sup>Professor & Head Department of Community Medicine B K L Walawalkar Rural Medical College, Sawarde, District - Ratnagiri

Demographic trends in India over a period of last 7 decades clearly reveal that population in higher age group (>60 years) is increasing faster mainly in rural areas. These senior citizens have increased morbidity and mortality especially from NCDs, degenerative disorders and domestic accidents. They are in need of health care services more as compared to younger age group individuals. Senior citizen, especially those who are above the age of 70 years, experience lot of difficulties to reach on their own to the nearby health facilities may be because of age factor, dependency, difficulties in mobilization, affordability, lack of transport to reach the nearby health facility. Principles of Primary health care and Universal health coverage, justify to make necessary arrangements to provide health care services to these needy people at home as they are unable or find it difficult to reach the services on their own.

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Based on these facts, an informal survey was undertaken in 3 villages (Dervan, Kudap and Hadkani), covered under Dervan Sub centre of PHC – Phurus, a catchment area under Rural Health Training Centre (RHTC) of B K L Walawalkar Rural Medical College – BKLWRMC (affiliated to Maharashtra University of Health Sciences, MUHS), Sawarde, District – Ratnagiri, Maharashtra state, to find out need for home-based care to the residents of these villages.

BKLWRMC is one of the nodal centre for Sumer Internship Programme (SIP) of MUHS and 20 students opted for SIP at this institute in the month of June 2023. Four Summer Internship Programme (SIP) students, were given an exercise to undertake survey for

need assessment for home-based care, as a part of their assignment in Research Methodology subject. exercise served the purpose of providing hands on learning experience to the SIP students in data collection, analysis and documentation on perceived health needs of the people Department could identify the scope for extended services of RHTC in the form of provision of home-based care, in response to the perceived demand from the people. The survey was done during the period 21/06/2023 to 30/06/2023. Individuals fulfilling any one of the following criteria are considered as 'in need of home-based care.

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- 1. Age above 70
- 2. Dependent on any other individual for mobilization outside the house
- 3. Bed ridden patients
- 4. In need of palliative care at home
- 5. Physically handicapped and individuals with mental ailments in any age group
- 6. Unable to bear the expenses of reaching the hospital or any health care institute

Important findings of this short survey conducted in 3 villages are as follows-

- a. Total number of houses in these 3 villages are 820, and total population is 2644 (males 1231 & females 1413)
- b. Out of 820 houses, information was obtained from total 308 (37.56%)houses, with total population of 1010 (38.19%). The remaining houses were either locked, or people have migrated to urban areas. There were communication barriers for getting the information from the respondents.

c. The nearby health services to the villagers are - Medical College (1 to 4 km), CHC - Kamathe, Chiplun km). Public transport services are – ST buses and private rikshaws. Around 95% families fall in 'BPL' category, having orange color ration cards. Overall housing conditions are good in terms of type of construction, house and Major courtyard cleanliness. occupation of the people is farming and engagement in casual labour work during non-farming season. Alcohol and smokeless tobacco consumption are common addictions observed the in villagers. At least one member from each house has mobile phone.

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- d. No. of individuals above the age of 70 are 587/1010 (58.11%) - males 286 and females 301. Total 198 individuals out of 1010 (19.60%) are dependent on some other person mobilization for their Only outside the house. individuals are in need of palliative care being victims of cancer in advanced stage and 4 individuals physically handicapped. However, at present, nobody is using either walker or wheel chair at home. Total number of 20 individuals from all 3 villages have reported need for special vehicle, if they have to travel outside the village. Total number of 238 individuals are in need of homephysiotherapy for their based orthopedic conditions. 148 individuals are in need of counselling sessions on their health issues. 30.2% and 7.10% individuals are reporting diminished vision and diminished hearing problems respectively.
- e. Majority of the individuals have multiple health problems and are in need of comprehensive services
- f. If these are the conditions in villages located very close to

Medical College & Hospital, conditions in other villages covered under RHTC and away from the Medical College & hospital, are likely to be still difficult.

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g. Informal talk with the villagers reveals their expectations for home-based care for deserving individuals.

The findings suggest the need for homebased care in these villages. Public health sector initiatives 'Doctors at Doorsteps' strongly recommend home based care to the needy individuals, who find it difficult to reach on their own to the hospitals and health centres.

World Health Organization (WHO) also recommends initiatives to operationalize home based health care, as an integral part of provision of primary health care. In metro cities, these type of services are introduced by private sector.

Following services may be considered under the head 'Home Based Health Care'

- 1. Diagnosis & Treatment of minor ailments
- 2. Collection of blood for investigations as per the need
- 3. Periodic examination of Hb, BP and Blood sugar
- 4. Provision of bed side nursing care and capacity building of care takers for the same
- 5. Therapeutic injections, Wound dressings, care of bed sores, minor surgical procedures etc.
- 6. Day care/personal hygiene/bed cleaning/ Nutrition/ physiotherapy/referral advice
- 7. Counselling of patient and relatives
- 8. Facilitate enrolment in social welfare services
- 9. Pain relief wherever applies

#### **Implications**

1. Direct medical care to the deserving patients at home

2. Improved doctor patient contacts in villages

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- 3. Compliance to social commitment and expression of accountability to the patients
- 4. Scope to expand other services at doorsteps
- 5. Improving quality of life of senior citizens and housebound patients
- 6. Reduction in out-of-pocket expenses to the beneficiaries

Taking into account the changing trends in the composition of the population, increased burden of NCDs, difficulties encountered by the beneficiaries to reach the services independently, necessity to reduce out of pocket expenses to the patients, we strongly endorse the necessity of arrangements for home-based health care in rural areas through the existing health infrastructure units at primary level, in a phased manner starting from area specific approaches to begin with. ☆

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This will not require much additional financial inputs, except appropriate micro-planning at each functional unit of health care delivery mainly PHCs, Sub Centres, Health & Wellness clinics & *Aapala Davakhana*. Community Health Officers (CHOs) placed at Sub centres may play key role on this front in collaboration with other stakeholders in the community.

#### Research Study Abstracts of Winners of IPHA Maharashtra Branch Scheme Padavidhar Sanshodhan Prakalp Anudan for M.B., B.S. Students from Medical Colleges of Maharashtra

**2022**: Sanika Patil \* – Shri Vasantrao Naik Government Medical College, Yavatmal Validity and reliability of translated Marathi version of the 14-item health literacy scale (HLS-14)

Introduction: Health literacy refers to the ability of individuals to "gain access to, understand and use information in ways which promote and maintain good health for themselves, their families and their communities." By improving people's access to health information, and their capacity to use it effectively, health literacy is critical to empowerment. Various tools for measuring health literacy are designed to assess reading comprehension and numeracy for English speakers. Hence, there is a need to develop a tool in the vernacular language and estimate health literacy levels in Indian settings. The present study was conducted with the objectives to develop a Marathi version of a 14-item health literacy scale (HLS-14), to test the reliability and validity of its Marathi version and to estimate the health literacy among patients attending the outpatient department at a tertiary care Centre. **Methodology:** The present cross-sectional study was conducted among 50 adult patients attending the Anti-Rabies Vaccination (ARV) Out Patients Department of Shri Vasantrao Naik Government Medical College and Hospital, Yavatmal, from July 2022 to December 2022. Data was collected by interview technique using a predesigned, pretested questionnaire comprising of sociodemographic variables and a 14-Item Health Literacy Scale available in English was translated into Marathi and backtranslated to English and the final version was developed. Bilingual study subjects who knew English as well as Marathi were enrolled purposively and administered both the versions of HLS-14 scale. Internal validity was assessed. For testing the reliability of the translated tool, study subjects were administered the same tool again on day 7. Cronbach's alpha was calculated for internal validity and the correlation coefficient was calculated for the reliability of the tool and Health Literacy was estimated. Results: The mean (SD) age of the study subjects was 33 (±10.58) and the majority 30 (60%) among them were males. Most of the study subjects belonged to socioeconomic status class II and class III 44 (88%). When items of Health Literacy Scale were analyzed, all the items barring 2, 6, and 10 gave an r-value of more than 0.70 which shows good reliability of each translated item. Cronbach's alpha value found for the current translated Marathi questionnaire is 0.66. Internal consistency is good. The mean total health literacy score was 51.16 ± 6.81. Conclusions: Translated Marathi version of HLS-14 is developed, which is valid and reliable. The health literacy among the study participants is marginal.

\* Guide: Dr. Sonal Deshpande, Assistant Professor, Shri Vasantrao Naik Government Medical College, Yavatmal

# Plastic Pollution: Earth's Silent Invader

A World Environment Day Spotlight

#### Dr. Ayesha Lajporiya<sup>1</sup>, Dr. Nisha Relwani<sup>2</sup>

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- <sup>2</sup> Associate Professor, Department of Community Medicine, MGM Medical College, Navi Mumbai

"Plastic will be the main ingredient of all our grandchildren's recipes."

- Anthony Hincks

World Environment Day, celebrated every year on June 5th, is a pivotal occasion to foster awareness and action towards protecting our environment. The year 2023's theme "Beat Plastic Pollution" focuses on plastic pollution, which has become one of the most pressing environmental issues globally. This article delves into the challenges and potential solutions to plastic pollution in India, focusing on Maharashtra, one of its most populous states.

#### #BeatPlasticPollution.

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The pervasive consumption of plastic has increased dramatically over the last few decades, having a negative effect on ecosystems, wildlife, and human health. Plastics have revolutionized countless industries and daily living to the point where they are now essential to modern life. Plastics have grown dramatically in popularity in India, changing the socioeconomic environment of the nation.

India went through enormous urbanization and industrialization after attaining independence in 1947, which fueled the desire for inexpensive and adaptable materials. Being the second most populated country in the world, it generates a colossal amount of plastic waste. According to studies conducted before 2023, India produced over 25,000 tons of plastic waste daily (1).

Single-use plastics have been significant contributors to the

pollution. These plastics, often used for packaging, are non-biodegradable and end up clogging waterways, suffocating wildlife, and contaminating soil and water. Maharashtra, the third-largest state in India, faces an acute problem with plastic pollution. Mumbai, its was once known for capital, its beautiful coastline. However, this coastline has been marred by the sight of plastic bags, bottles, and other waste in recent years. The inadequate waste management systems and lack citizens awareness among exacerbated the issue. Navi Mumbai, a bustling city in Maharashtra, India, is not immune to its effects. As a rapidly growing urban centre, Navi Mumbai faces unique challenges in managing plastic waste and mitigating consequences of plastic pollution.

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Cattle grazing on Plastic in Urban area

#### **Causes and Consequences**

1. **Single-use plastics:** Single-use plastics, often also referred to as disposable plastics, are used once before they are thrown away or recycled. These items are typically made from oil-based materials and

include products like plastic bags, straws, coffee stirrers, soda and water bottles, and most food packaging.

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- 2. **Inadequate waste management:** Plastic garbage ends up in landfills, rivers, and oceans due to a lack of recycling facilities, poor collecting techniques, and a lack of awareness about proper waste disposal.
- 3. **Littering and illegal dumping** are two critical contributors to plastic pollution, as are improper disposal methods.
- 4. **Plastic in the oceans:** Marine life suffers significant harm due to plastic garbage in the ocean. Seabirds, turtles, and whales are just a few animals that may mistake plastic for food or become entangled in it, harming or even killing them.
- 5. **Microplastics:** Small plastic granules with a diameter of up to 5 mm are known as microplastics. Concentrations of these particles in the ocean's surface waters have drastically grown over the previous forty years. These tiny plastic particles pose a risk to human health as they are consumed by marine life and subsequently move up the food chain. (2)

# Initiatives to Combat Plastic Pollution in India:

The Indian government has been proactive in addressing the issue of plastic pollution. In 2019, Prime Minister Narendra Modi declared an ambitious pledge to phase out singleuse plastics by 2022. Additionally, initiatives such as the Swachh Bharat Mission have also aimed to improve waste management systems throughout the country.

#### Maharashtra's Fight Against Plastic:

In Maharashtra, the state government has been at the forefront of the fight against plastic pollution. In 2018, Maharashtra banned single-use plastic items such as bags, cutlery, and plates. Moreover, several Non-Governmental Organizations (NGOs) and community groups in Mumbai and other cities have organized beach clean-up drives and awareness campaigns. (3)

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Afroz Shah is a lawyer by profession and an environmental activist by passion, he cleaned up to 9 million kgs of garbage and dumpsters on the Versova beach. (4)



Beach clean-up drive on world earth day 2022 at bank of Mithi River in Mumbai

# Wondering what you can do to #BeatPlasticPollution: Try these steps.

**Clean a Beach/River:** Join beach/river clean-ups in your area. Or take your family along on a beach walk and start your own clean-up.

**Shop Sustainably:** Next time you shop, choose food with no plastic packaging, carry a reusable bag, buy local products, and refill containers to reduce your plastic waste and its environmental effect.

#### Try a Zero-Waste Lifestyle:

- 1. Become a zero-waste champion.
- 2. Invest in sustainable, environmentfriendly products- reusable coffee mugs, water bottles and food wraps.
- 3. Consider options like menstrual cups, bamboo toothbrushes and shampoo bars. These will help you save money and the world too.

**Travel Sustainably:** When you are on holiday, try to watch your single-use plastic intake. Refuse miniature bottles in hotel rooms, take your own reusable drinking bottle and use reef-safe sunscreen without microplastics.

Be an advocate for change: Ask your local supermarkets, restaurants and suppliers to ditch plastic packaging, refuse plastic cutlery and straws, and tell them why. Pressure your local authorities to improve how they manage waste.

**Dress Sustainably:** The fashion industry produces 20% of global wastewater and 8-10% of global carbon emissions. Consider sustainable clothing lines over fast fashion. (5)

Choose plastic-free personal care products: Personal care products are a significant source of microplastics, which get washed into the oceans straight from our bathrooms. Look for plastic-free face wash, day cream, makeup, deodorant, shampoo and other products.

#### Conclusion:

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On this World Environment Day, let's pledge to make a difference by recognizing the dire need to curb plastic pollution in India and Maharashtra. We can safeguard our environment for future generations through collective action, government policies, public awareness, and innovation.

Concrete efforts are required on various fronts to mitigate the adverse effects of plastic pollution. Governments must prioritize implementing developing and comprehensive waste management systems, focusing on recycling and proper disposal practices.

consequences, Comprehensive waste management systems, recycling efforts. and public awareness campaigns are necessary. Businesses should reduce their reliance on singleplastics, adopt sustainable use practices, and promote alternatives. International collaboration is crucial in sharing knowledge and driving global action.

Individuals must make conscious choices to reduce plastic consumption

and advocate for change. We can protect human health, preserve ecosystems, and create a sustainable future by taking immediate action.

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#### References:

- 1. India Produces 25,000 Tones Plastic Waste Daily, 40% Uncollected: Centre [Internet]. NDTV.com. Available from: https://www.ndtv.com/india-news/india-produces-25-000-tonnes-plastic-waste-daily-40-uncollected-centre-2137014
- 2. Environment UN. Microplastics [Internet]. UNEP UN Environment Programme. 2017. Available from: https://www.unep.org/resources/report/microplastics
- 3. Maharashtra plastic ban explained: Advantages, alternatives and the way ahead- Technology News, First post [Internet]. Tech2. 2018. Available from:https://www.firstpost.com/tech/science/maharashtra-plastic-ban-explained-advantages-alternatives-and-the-way-ahead-4612191.html
- 4. How Afroz Shah's Efforts Resulted In The Largest Beach Clean-up Project Versova Beach [Internet]. mad4india.com. 2022 [Available from: https://mad4india.com/madfornature/afroz-shahs-efforts-in-versova beach/
- 5. Ro C. Can fashion ever be sustainable? [Internet]. BBC. 2020. Available from: https://www.bbc.com/future/article/20200310-sustainable-fashion-how-to-buy-clothes-good-for-the-climate

INDIAN PUBLIC HEALTH ASSOCIATION MAHARAHSTRA BRANCH

MGM INSTITUTE OF HEALTH SCIENCES
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India 2047: 1.6 billion Lives, Infinite Possibilities

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### IPHA Maharashtra Inter Medical College Public Health Quiz **Competition 2023 for Undergraduate Medical Students** Zonal Rounds – 27th June 2023: State Co-ordinator: Dr Sarika Patil

#### Zone : Mumbai & Konkan Co-ordinator: Dr Ranjana Zade

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The IPHA zonal quiz competition was meticulously organized by a dedicated team of residents of dept of community medicine headed by the Zonal Officer Dr. Ranjana Zade under the guidance of Head of the department, Dr Dinesh Samel, ensured the smooth execution of the event. Venue was PSM lecture Hall, RGMC, Thane

The event witnessed the presence of Dr. Prasad Waingankar, IPHA Maharashtra State secretary, Dr. Ashlesha Tawde, EC Member IPHA, Dr Namrata Kulkarni, Asst Department of Community Professor Medicine, Grant Medical College, Mumbai. The programme was officially inaugurated by Dr Rakesh Barot, Dean, RGMC.



Team-1:MGM Medical College, Navi Mumbai Team-2:Grant Medical college, Mumbai Team-3: Vedanta Institute of Medical sciences, Palghar Team-4:Rajiv Gandhi medical College, Thane Team-5:BKL Walawalkar Medical College, Chiplun.

A total of 5 teams, registered for quiz. The quiz competition followed a structured format designed to test the participant's knowledge and critical thinking skills in the field of public health. The competition consisted of multiple rounds, including a direct round, followed by subsequent rounds of MCQ, audiovisual rounds, and rapid-fire rounds. questions covered a wide range of topics related to public health, including communicable diseases, epidemiology, healthcare systems, global health, and public health policies. The quiz competition was moderated by Quizmaster supervised by the panel of experts.

The IPHA zonal quiz competition witnessed exceptional performances from all participating teams. After a series of intense rounds, the top two teams were declared winners & runner-up respectively.

1st: BKL Walawalkar Rural Medical College, Chiplun

2<sup>nd</sup>: Rajiv Gandhi Medical College, Thane



The winning team, Ankita Adarkar and Manasi Deshpande will participate in final state level round at Pune on 11th July. The programme concluded with the vote of thanks given by Dr Vrushali Kulkarni, Assistant Professor, Department community Medicine, RGMC.

> Zone: Vidarbha Co-ordinator: Dr Sushma Thakare

Vidarbha zone round was conducted by department of Community Medicine, Indira Gandhi Government Medical College, Nagpur on 27th June 2023. Following 09 team were enrolled for the zonal round.

1) Govt. Medical College, Nagpur

Indira Gandhi Govt. Medical College, Nagpur

3) NKP Salve Institute of Medical Sciences, Nagpur

4) J.L.N. Medical College, Sawangi Meghe, Wardha

5) MGI Medical Sciences, Sewagram, Wardha

6) Govt. Medical College, Akola

7) Govt. Medical College, Chandrapur

8) Datta Meghe Medical College, Nagpur

9) Govt. Medical College, Gondia

For screening round 30 multiple choice questions (MCQ) of one mark each were given & then teams were ranked as per marks obtained. There was tie for fifth position. between NKP Salve Institute of medical sciences, Nagpur & GMC Gondia. So again, screening was done between two teams. Finally following five teams were selected for zonal round.

1) Govt. Medical College, Akola

- 2) Govt. Medical College, Nagpur3) NKP Salve Institute of Medical Sciences,
- 4) MGI Medical Sciences, Sewagram, Wardha

5) Govt. Medical College, Chandrapur

Final zonal round was conducted as per the quiz set provided by Dr. Sarika Patil State Quiz Co-Ordinator IPHA. At the end ☆

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of final round GMC - Chandrapur obtained 55 Mark, MGIMS - Sewagram got 70 Marks, NKP Salve - Nagpur got 80 Marks, GMC - Nagpur got 100 Marks & GMC - Akola obtained 125 Marks. GMC - Akola won the Quiz while GMC - Nagpur was runner up team. All the 18 participants were given Certificate of participation.



Winner team & Runner up team was awarded with cash prizes. The Zonal round of quiz competition was Conducted Smoothly & successfully at IGGMC, Nagpur. Vidarbha Zone.

#### Zone : Western Maharashtra Co-ordinator: Dr Muralidhar Tambe

Venue – MG Auditorium, B. J. Govt. Medical College, Pune

Dr. Poonam Sancheti, Assistant professor, welcomed all the dignitaries and gave brief information about Dr Jal Mehta. Brief information about the IPHA quiz was given by Dr. M. P. Tambe and he welcomed all the participants and their mentors from various colleges

Ouiz masters -

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Dr Rupali Baviskar & Dr Ashwini Patekar Juries for the quiz –

- 1) Dr M. P. Tambe (Professor and Head, Dept of Community Medicine, BJGMC)
- 2) Dr Aarti Kinikar (Professor & Head, Department of Pediatrics, BJGMC)
- 3) Dr. J. V. Dixit (Professor, Dept of Community Medicine, BJGMC)
- 4) Dr. Sujata Murarkar (Associate Professor, Community Medicine, BVDTU)



After the quiz got over, result of the quiz was declared. Teams securing 5th, 4th, and then 3rd position were felicitated by the Dr. Tambe sir, Dr. Kinikar madam and Dr. Dixit sir respectively. Then runner up team (AFMC, Pune) was felicitated by all the four dignitaries with a prize amount and certificates. And lastly, with round of applause winner team (Dr. D. Y. Patil Medical College, Pune) was felicitated by all the four dignitaries on the dais with a prize

amount and certifictaes. Lastly Dr. Nandkumar Salunke (Treasurer, IPHA Assistant Professor, Community Medicine) delivered a vote of thanks.

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#### Zone : North Maharashtra Co-ordinator: Dr Yashowardhan Totla

Zonal Round (North Maharashtra Region) of IPHA State Level Inter-Medical College Quiz Competition for Under-Graduate Students was conducted by Department of Community Medicine on 27th June, 2023 from 2:00 pm to 5:00 pm at Dr Vasantrao Pawar Medical College, Nashik. Following 5 Teams had enrolled for the Zonal Round:

- 1) Shri Bhausaheb Dhule Government Medical College, Dhule.
- 2) Dr. Vasantrao Pawar Medical College, Hospital & Research Centre, Nashik.
- 3) Government Medical College, Jalgaon.
- 4) Dr. Balasaheb Vikhe Patil Rural Medical College, Loni, Ahmednagar.
- 5) SMBT Institute of Medical Sciences and Research Institute, Dhamangaon, Nashik.



All 5 Rounds of the Quiz were conducted by using the Quiz Set provided by Dr. Sarika Patil, State Quiz Co-ordinator. At the end of the 5th Round the Winner of the Zonal Round was Team C (Government Medical College, Jalgaon) and the Runner Up was Team E (SMBT Institute of Medical Sciences and Research Institute, Dhamangaon, Nashik).

All the 10 Participants were given "Participation Certificates." Winner and Runner up Team were awarded Cash Prizes



#### Zone : Marathwada Co-ordinator: Dr Rahul Surve

Conducted at Mahatma Gandhi Mission's Medical College and Hospital, Aurangabad, Maharashtra.

The preparations for the quiz competition started with publicity of the quiz among the UG medical students by displaying banners at various locations in college. Total 5 teams (GMC Aurangabad, JIIU's-IIMSR Badnapur, GMC Nanded, MIMSR Latur, MGM Aurangabad) participated in zonal round.

The selected participants were informed about rules, syllabus of the final quiz. Venue, logistics, staff and resource person involved in the quiz were informed

and prepared beforehand.

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We invited Dr. R. B. Bohra (Dean, MGM Medical College and Hospital, Aurangabad) as the chief guest of the competition. Dr. Salve S. B. (Professor and Head, Dept. of Community Medicine MGM Medical College and Hospital, Aurangabad), Dr. Mahajan S. M. (Professor Dept. of Community Medicine MGM Medical College and Hospital, Aurangabad) were the Judges for the competition. All other faculty members from the department attended the quiz. The total audience for the final quiz was 150 students, 14 faculty members, 02 PG students and 04 Interns and supportive staff.



Quiz Masters (Dr Anwaya Magre and Dr Sameer Naval), Score Keeper (Dr Akshita Sharma, Dr. Nikita Tayde and Dr. Nimisha Shinde), Time Keeper (Dr. Vishal Pahune, Dr. Shreya Garg and Dr. Disha Garg) were pre decided.

On the day of quiz, quiz coordination team, participants and audience were present half an hour before quiz. The judges were welcomed and occupied their respected seats and the quiz round started by the quiz master at 2:00 p.m. In the beginning team D was leading and subsequently team A gave a tough competition and ended up as winner. The participants found the questions interesting and said that it definitely helped them to study for the subject. Audience was also enthusiastic they also participated while answering and backing up the teams.

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The residents of the department Dr. Akshita Sharma and Dr. Vishal Pahune played a major role right from organizing the elimination round, arrangement of venue, logistics, guiding the team members and helped the event to be grand success.

Faculty of Department of Community Medicine Dr. Rahul R. Surve (Associate Professor), Dr. D.N. Tayade (Assistant Professor), Dr. Pallavi B. Kunde (Assistant Professor), Dr. Sameer S. Naval (Assistant Professor), Dr. Bhavna Joshi (Assistant Professor), Dr. Rajesh Dase (Associate Professor), Dr. Anwaya Magare (Assistant Professor), Dr. Chavan (From GMC Aurangabad) and Dr. Mohammed Ghodke (Assistant Professor, JIIU's-IIMSR Badnapur) graced the occasion and added stars to the event.



After the quiz, the audience and the participants were addressed by the Professor and Head Dr. S. B. Salve enlightening them about this year's theme for the World Population Day.

The results were declared by Dr. Swati Mahajan. All the participants were felicitated for their performance and were given certificates by Judges. Certificate of Achievement and Mementos were given to the winners by the hands of Honorable Head of the department Dr. S. B. Salve. The program was concluded by the vote of thanks given by Dr. Sameer Naval. Organizing team.

#### From the Desk of State Quiz Co-ordinator

It was wonderful experience to steer the activity. Enjoyed the initiatives and creativity Zonal Coordinators, of enthusiasm of students participating from large number of Medical colleges in Maharashtra, timely smooth conduction of the activity, all of which wouldn't have been be possible without guidance of senior faculties across the state and background participation of **IPHA** Maharashtra Executive Committee members as a TEAM.



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### A Doctor.....! A Blessing ......!

#### Dr Sujata Lavangare

Associate Professor (Addl.), Community Medicine, Seth G S Medical College & KEM Hospital, Mumbai

With renewed hope and vigour, Here comes the Doctor, Symbol of peace and valour, Filled with determination and grit, Full of curiosity and wit. Alert and aware to the core, A doctor can never be a bore... A doctor is, always, "Yeh Dil Maange More".

Sleeps for a wink, awake in a jiffy, A patient's call, an urgent meet... A doctor is ever ready... OPDs, visits and presentations, Projects and dissertations... Amidst strikes the pandemic, And putting on the gears, Masks, PPE kit, Face shield, The doctor enters the battlefield. Who else can multitask? More than a doctor, May I ask?

Some moments of despair, Sadness and gloom, When a doctor is beaten, A day of doom, But no one can deter, A doctor's indomitable will, Come what may, I will come back still,

Zest to serve, a passion to fulfil, Ever thrilled to impart the skills, Sometimes a counsellor, an exam-goer, Ever ready to listen, to lend an ear, Doctor is always a giver, an ever doer. Always smiling, a Midas touch, Being a doctor means so much. A doctor is a ray of hope, a silver lining, Being a doctor is indeed a blessing...

- Dr Sujata Lavangare National Doctor's Day - 01 July 2023

#### **IPHA MAHARASHTRA EXECUTIVE COMMITTEE**

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[2021 - 2024]

Views expressed by the Authors in this Newsletter are their own and not official view / stand of IPHA