IPHA MAHARASHTRA BRANCH Newsletter

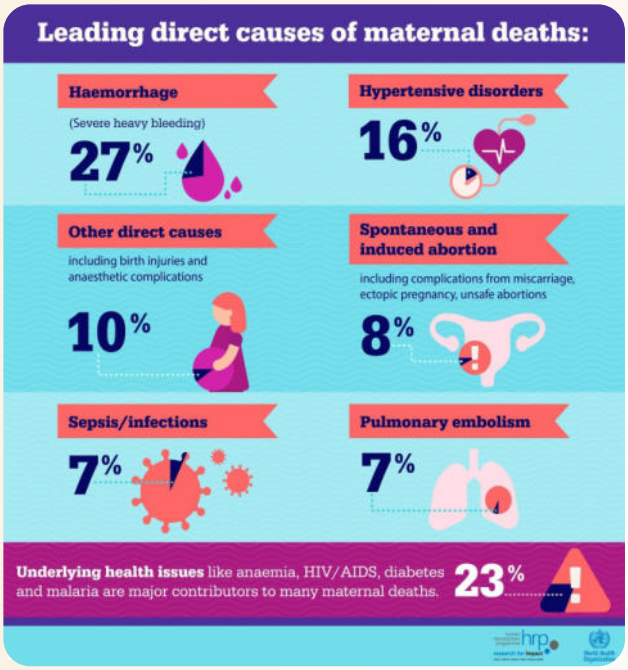
Volume : 17 Issue : 1 Jan-Mar 2025

IPHA MAHARASHTRA NEWSLETTER
JANUARY-MARCH 2025 ISSUE

TABLE OF CONTENT

President's Page

No woman should die giving life. The health of mothers and babies is the foundation of healthy families and communities, helping ensure hopeful futures for us all. A maternal death is defined by WHO as the "death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by pregnancy or its management, but not from accidental or incidental causes".



This year's **World Health Day** (7th April 2025) – which marks 5 years from the Sustainable Development Goals deadline — will kick off a year-long campaign titled ***Healthy beginnings, hopeful futures***, focussed on maternal and newborn health.

A recent scientific study - multi-strategy systematic review to identify causes of maternal deaths occurring in 2009–20 - published in the Lancet Global Health, is WHO's first global update on the causes of maternal deaths since the SDG were adopted in 2015. [Global and regional causes of maternal deaths 2009–20: a WHO systematic analysis, by Cresswell J A, Alexander M, Chong M Y C, Link H M, Pejchinovska M, Gazeley U, *et al* March 2025] Haemorrhage – severe heavy bleeding – and hypertensive disorders like preeclampsia are the leading causes of maternal deaths globally, according to this new study. These conditions were responsible for around 80,000 and 50,000 fatalities respectively in 2020, highlighting that many women still lack access to lifesaving treatments and effective care during and after pregnancy and birth.

In addition to outlining the major direct obstetric causes, it shows that other health conditions, including both infectious and chronic diseases like HIV/AIDS, malaria, anaemias, and diabetes, underpin nearly a quarter (23%) of pregnancy and childbirth-related mortality. These conditions, which often go undetected or untreated until major complications occur, exacerbate risk and complicate pregnancies for millions of women around the world.

To avoid maternal deaths, it is vital to prevent unintended pregnancies providing adequate access to contraception. Most maternal deaths are preventable, as the health-care solutions to prevent or manage complications are well known. All women need access to high quality care in pregnancy, and during and after childbirth. Maternal health and newborn health are closely linked. It is particularly important that all births are attended by skilled health professionals.

Factors that prevent women from receiving or seeking care during pregnancy and childbirth are:

- health system failures that translate to (i) poor quality of care, including disrespect, mistreatment and abuse, (ii); insufficient numbers of and inadequately trained health workers, (iii); shortages of essential medical supplies; and (iv) the poor accountability of health systems;
- social determinants, including income, access to education, race and ethnicity, that put some sub-populations at greater risk;
- harmful gender norms and/or inequalities; and
- external factors contributing to instability and health system fragility, such as climate and humanitarian crises.

To improve maternal health, barriers that limit access to quality maternal health services must be identified and addressed at both health system and societal levels.

[Source: WHO Website, Lancet]

Dr. Prasad Waingankar

Editorial

World Tuberculosis Day 2025: India's Commitment to a TB-Free Future

Dr. Harshal Pandve [1], Dr. Smita Chavhan [2]
Editor [1], Associate Editor [2]

Every year, March 24 marks *World Tuberculosis (TB) Day*, a reminder of the ongoing battle against one of the world's deadliest infectious diseases. The theme for 2025, *'Yes! We Can End TB'*, resonates deeply with India's ambitious goal of eliminating tuberculosis by 2025, five years ahead of the global target set by the WHO's End TB Strategy. As we reflect on this year's theme, it is crucial to highlight India's relentless efforts, progress, and the challenges that remain in achieving this milestone.

India's Burden and the Need for Urgent Action

India continues to bear the highest TB burden globally, accounting for nearly 27% of the world's cases. The socio-economic impact of the disease is enormous, affecting millions of individuals, particularly the underprivileged and marginalized communities. Recognizing this, India has intensified its fight against TB with a comprehensive, multi-sectoral approach under the *National TB Elimination Programme (NTEP)*.

Key Initiatives Driving TB Elimination in India

India has undertaken several strategic interventions to achieve its ambitious target of TB elimination by 2025:

1. **Nikshay Poshan Yojana**: A direct benefit transfer scheme providing nutritional support to TB patients to enhance treatment adherence and recovery.
2. **Universal Drug Susceptibility Testing (UDST)**: Ensuring early and accurate diagnosis of drug-resistant TB (DR-TB), thus improving treatment outcomes.
3. **Strengthening Diagnostic Infrastructure**: The rapid scale-up of molecular diagnostic tools such as CB-NAAT and TrueNat has significantly reduced diagnostic delays.
4. **Community Engagement & Active Case Finding (ACF)**: Health workers actively screen high-risk populations, including slums, prisons, and tribal areas, to identify cases early and curb transmission.
5. **Public-Private Partnership (PPP) Model**: The engagement of private healthcare providers ensures seamless integration of TB diagnosis and treatment across sectors.
6. **Newer Treatment Regimens**: India is at the forefront of evaluating newer, shorter, and more effective drug regimens.

Challenges Hindering TB Elimination

Despite remarkable progress, several obstacles persist in the path to TB-free India:

- **Stigma and Awareness**: Social stigma prevents individuals from seeking timely diagnosis and treatment, leading to continued transmission.
- **Drug-Resistant TB**: The rise in MDR-TB and XDR-TB cases demands more robust treatment strategies and adherence monitoring.
- **Health System Challenges**: Gaps in healthcare infrastructure, particularly in remote areas, pose difficulties in ensuring uninterrupted TB care.
- **Social Determinants of TB**: Malnutrition, poverty, and overcrowding remain underlying factors fueling TB transmission.

The Way Forward: Sustaining Momentum

To achieve TB elimination, India must continue to strengthen its policy implementation, ensure adherence to global best practices, and invest in innovative technologies. The government's *TB Mukt Bharat Abhiyan* has set a strong foundation, but sustained political will, enhanced research, and community-driven approaches will be pivotal in meeting the 2025 goal.

On this *World TB Day 2025*, let us reaffirm our collective commitment to eradicating this ancient disease. The battle against TB is not just a public health challenge but a moral imperative to safeguard the health and dignity of millions. With unwavering determination, innovation, and community participation, India can lead the world in achieving a *TB-free future*.

■ ■ ■

PG Corner

Transforming Community Medicine PG Training: A New Era of Participatory Learning

Dr. Balamurugan S, Junior Resident II, Department of Community Medicine,
Indira Gandhi Government Medical College, Nagpur-18.

"It is not the strongest of the species that survives, nor the most intelligent. It is the one that is the most adaptable to change" While most can figure out these words from Charles Darwin on evolution, a very few can comprehend how it is related to post graduation. That too in a holistic field or let's say branch like Community Medicine, which day in and out is evolving.

Medical education, like evolution must constantly adapt to the needs of society to remain relevant and effective. Higher they fly when every budding public health specialist realises that they need to be willing to change before being adaptable to change.

In recent years, our curriculum across several states has undergone significant updates to enhance learning, foster active participation and ensure real world application of public health concepts. These reforms aimed to bridge the broad gap between theoretical knowledge and practical skills with a goal of shaping well rounded public health professionals.

While thoughtful planning lays the foundation for progress, true transformation happens only when ideas are effectively implemented, where exactly the Department of Community medicine, IGGMC Nagpur focussed and still focusses on.

The department hitherto had a famed and excellent training curriculum viz, detailed and well-presented seminars, informative journal clubs with critical appraisal to the precision, case presentations covering clinical and social aspects to the core, interesting microteaching sessions to sharpen our teaching skills and beneficial book reviews which awakens the reader in us, statistical exercises, group discussions on updated topics, field visits to the must-go spots for a public health specialist.

It's a renowned fact that the branch's core lies in comprehensive care in which community participation forms the crux. Very similarly did we feel a gap in participatory learning and to fix it bloomed all the innovations in the curriculum. Let's just swim through the ocean of ideas we implemented and are planning to.

Key Innovations in the PG curriculum

- **Thematic Timetable for structured learning**

  Our department embarks on a unique journey through a vast landscape of public health by a chosen theme every month. (Occupational health, Epidemiology were some of the few themes to mention in the recent months). "Know something about everything and everything about something". What we have ensured is the latter in addition to the former already in progress. It makes learning not only engaging but also structured. By focussing on one core area at a time, this approach enhances continuity and interest and makes sure that our memory cells are functional.

- **Public health updates: Staying informed**

  Medical field is ever-changing and updates sprout every second. Every Monday, we kick-start the week with a short session of latest public health updates. From emerging disease outbreaks anywhere in the world to policy shifts to groundbreaking research activities, it helps us stay informed. It's not just about knowledge, but also staying ahead. The four walls were elevated to a vantage point for the world of public health.

- **Participatory learning: Engaging beyond the session**

  Active approach vs Passive approach? It's not an enigma which would yield results. At a time where our normal circadian cycle dictates a period of sleepiness and decreased alertness, there was a high demand of active learning. A brilliant example to narrate was when a short microteaching session recently on Adolescent Health & Wellness days was followed by a wonderful on-spot role play by our residents. Similarly, no session would end without a bucket of questions and doubts to solve.

- **Post activity group discussions**

  The participatory learning model mentioned above took an upgrade when we inculcated post activity group discussions. Every activity was followed by an exercise simulating a real-life scenario to tackle on the topic for the day. 2-3 groups are made usually and interactive group discussions where residents engage, question and innovate followed by a volunteer presenting the summary of the discussion. This hands-on approach secures knowledge retention, critical thinking and problem-solving skills.

- **Workshops by experienced residents**

  Another innovation we experimented which became a resounding success was departmental workshops by the experienced junior residents. Never bogged down by challenges, the first workshop on Biomedical waste segregation was conducted. As if it didn't satiate, a second workshop on Occupational health & safety in health care settings was held successfully soon after and the public health aspirants entered the professional realm.

- **Panel Discussion by budding experts**

  Panel discussion by residents? "You must be kidding" would be the betting response. In the bustling classrooms of yesteryear, the sound of chalk against the blackboard was the heartbeat of learning. Now imagine stepping into a classroom where your colleagues turn experts in a flash of time. Conducting a panel discussion is not everyone's cup of tea. A way of teaching solely dedicated to experts of their respective field, the amount of hard work, preparation to gain expertise by our residents was visible when the first panel discussion on Climate change & health was conducted. It was one moment of pride and a path we laid towards the peak of education.

- **Guest lectures**

  Now from making experts to bringing real experts in.

  Our department made it a habit of conducting guest lectures every month. Experts from different domains provide a broader understanding of our field. They bring in-depth knowledge from their field, exposing us to newer ideas which no textbook can give. How it could also benefit the guest lecturer? Interaction with students from different institutes can provide fresh perspectives, stimulating further research and refining their approach.

- **Debate, Mini conference and Public Health Summit**

  While so far it was all about what we successfully implemented, the following are in our bucket list.

  Debate on novel and sensitive topics. Debates are similar to two sides of a coin. The need to visualise every problem from both sides. Needn't we? As future policy makers, we ought to be equipped with the skill to debate even policies and community health interventions.

  Next in our plan is a mini conference for undergraduates and interns aided by pre-conference workshops.

  A pinnacle of all the above would be the 'Public Health Summit' planned on World Health Day. A diverse resident population from states all across India aided that they represent different states of India and discuss key public health challenges faced by their respective states.

  This could encourage students to analyse state specific public health problems and also solutions for them.

■ ■ ■

Perspective

"Tribal Health in Maharashtra – Challenges, Interventions and The Path to Equity"

Dr. Amol Kinge[1], Dr Sarika Patil[2], Dr Sanjay Rathod[2]
1.Assistant Professor, Department of Community Medicine, Shri Bhausaheb Hire Government Medical College, Dhule
2. Professor and Head, Department of Community Medicine, Government Medical College, Nandurbar
3. Dean, Government Medical College, Nandurbar

Introduction

Maharashtra, India's second-most populous state, presents a stark divide between its urban centers and tribal-majority districts such as Nandurbar, Gadchiroli, Palghar, and Melghat. While cities like Mumbai and Pune thrive with advanced healthcare facilities, these remote regions struggle with systemic neglect, geographical isolation, and cultural barriers, leaving their 10.2 million tribal residents (Census 2011) highly vulnerable to preventable diseases.

Tribal communities such as the Warli, Gond, Bhil, and Korku face a disproportionate burden of infectious diseases, malnutrition, and genetic disorders like sickle cell disease (SCD). This article examines the root causes of these health disparities, evaluates existing interventions, and proposes culturally inclusive strategies to improve healthcare access and outcomes.

Health Challenges in Tribal Maharashtra

1. A Lingering Threat ofInfectious Diseases: Tribal districts remain hotspots for preventable infectious diseases. In Gadchiroli alone, 30% of Maharashtra's malaria cases are reported annually (NVBDCP, 2023), driven by stagnant water bodies, poor drainage, and proximity to forests. Similarly, tuberculosis (TB) incidence in these regions stands at 256 per 100,000—nearly twice the state average (State TB Report, 2023). The delay in diagnosis due to reliance on traditional healers and inadequate access to Directly Observed Treatment (DOTS) centers exacerbates transmission.

2. Persistent Gap in Maternal and Child Health: Maternal mortality in tribal belts like Melghat remains high at 120 deaths per 100,000 live births, compared to Maharashtra's average of 46 (NHM, 2022). Cultural preferences for home births and distrust of hospitals result in only 62% of tribal women opting for institutional deliveries. Child health indicators also reveal alarming trends: 48% of tribal children under five are stunted, and 42% are underweight (NFHS-5, 2021). Chronic malnutrition, frequent infections, and inadequate maternal nutrition perpetuate this cycle of poor health.

3. Rising burden of Non-Communicable Diseases (NCDs): Urbanization and changing lifestyles have led to a growing burden of non-communicable diseases among tribal populations. Hypertension affects 18% of tribal adults, while 5% suffer from diabetes (ICMR-NIRTH, 2021). High alcohol consumption, low health literacy, and limited screening programs further exacerbate the crisis.

4. The Challenge of Sickle Cell Disease and Hematological Disorders: Sickle cell disease (SCD) is highly prevalent in tribal Maharashtra, with over 15% of the population in districts like Gadchiroli and Chandrapur carrying the sickle cell trait (ICMR-NIRTH, 2020). Despite ongoing state-led screening programs, stigma surrounding genetic disorders and a lack of counseling services hinder effective prevention. Concurrently, 65% of tribal women suffer from anemia, primarily due to iron-deficient diets and high parasitic infections like hookworm.

Determinants of Health Disparities

1. Geographic and Infrastructure Barriers: Many tribal villages remain inaccessible, particularly during the monsoons. In Nandurbar, 35% of villages lack all-weather roads, forcing residents to travel long distances for medical care. While Mobile Medical Units (MMUs) provide some relief, inconsistent funding and poor road infrastructure limit their reach.

2. Cultural and Social Barriers: Traditional healers, or *Bhagats*, play a dominant role in tribal healthcare, often delaying modern treatment. For example, in Gadchiroli, malaria is still treated with herbal concoctions before patients seek antimalarial drugs. Vaccine hesitancy, fueled by myths such as "vaccines cause infertility," remains widespread. Language barriers further complicate communication, as many healthcare workers do not speak tribal dialects like Warli or Korku.

3. Shortage of Healthcare Resources: Tribal healthcare faces a critical shortage of medical personnel. The doctor-patient ratio in tribal blocks stands at 1:15,000, far below the state average of 1:1,400 (Rural Health Statistics, 2021). Additionally, 45% of PHC doctor positions remain vacant, and 30% of sub-centers lack electricity and running water.

Current Interventions and Their Limitations

1. National Health Mission (NHM) Initiatives: Programs like the *Mahatma Phule Jan Arogya Yojana (MPJAY)* aim to provide cashless care to tribal families. However, utilization remains low, with only 12% of eligible households benefiting from the scheme (CAG Report, 2023). Similarly, Mobile Medical Units (MMUs) operate in Nandurbar, Melghat and Gadchiroli but often struggle with inconsistent funding and logistical constraints.

2. Community-Based Approaches: Accredited Social Health Activists (ASHAs) and ***tribal mitras*** (community volunteers) have been instrumental in improving health awareness. In Palghar, door-to-door campaigns have led to a **20% increase** in antenatal care registration. However, ASHAs often encounter resistance when advocating for hospital births or vaccinations.

3. Research and Pilot Programs: The ICMR-National Institute of Research in Tribal Health (NIRTH) has led groundbreaking research on sickle cell disease and anemia. A similar project conducted by AFMC Pune and District Administration Nandurbar in Nandurbar district assessed the prevalence of sickle cell disease and other hemoglobinopathies. However, there appears to be a gap in further research focused on developing a culturally appropriate preventive action plan tailored to the needs of the local tribal communities. A pilot program in Gadchiroli, Maharashtra, initiated by the Government of Maharashtra and Tata Trusts, demonstrated the effectiveness of fortified rice in reducing anaemia. The intervention, launched in October 2018, involved fortifying rice with iron, folic acid, and vitamin B12 at local rice mills and distributing it through Public Distribution System (PDS) outlets. A study conducted to assess its impact revealed significant improvements. In intervention blocks (Kurkheda and Bhamragarh), anaemia prevalence dropped from 58.9% to 29.5%, a 29.4% reduction, compared to an 8% decline in the control block (Etapali). The results suggest that fortified rice can be an effective and scalable strategy to combat iron-deficiency anaemia in vulnerable populations (Tata Trusts, 2019).

Proposed Strategies for Sustainable Change

Addressing Sickle Cell Disease: Efforts to combat sickle cell disease (SCD) in tribal communities must be rooted in culturally appropriate strategies. Further research by public health specialists is crucial to developing preventive action plans tailored to the unique needs of these communities. Engaging local youth as SCD Mitras can be an effective approach, equipping them with the necessary skills to provide culturally sensitive genetic counseling. Additionally, integrating SCD screening into routine antenatal check-ups and involving traditional birth attendants (dais) in early referrals can help ensure early detection and management. Raising awareness through culturally relevant campaigns—such as incorporating SCD education into tribal festivals—can further enhance understanding and acceptance of preventive measures.

Combating Malnutrition and Anemia: Reviving traditional diets rich in essential nutrients can play a pivotal role in addressing malnutrition and anemia. Incorporating locally available, nutrient-dense foods like millets, moringa, and amaranth into Anganwadi meals can improve dietary diversity and nutritional intake among tribal children. Establishing community kitchen gardens, managed by women's self-help groups (SHGs), can provide a sustainable source of fresh produce, ensuring year-round food security. Additionally, implementing biannual deworming drives alongside hygiene education can help reduce parasite-induced anemia, a significant contributor to poor health outcomes in these communities.

Bridging Cultural Divides: Overcoming cultural and linguistic barriers is essential for improving healthcare delivery in tribal regions. Recruiting bilingual health translators can help bridge the communication gap between medical teams and tribal communities, ensuring better understanding of health information. Collaborating with traditional healers (Bhagats) can also enhance healthcare acceptance. By training Bhagats to recognize severe illnesses and encouraging them to refer cases to Primary Health Centers (PHCs), healthcare providers can leverage traditional knowledge while ensuring timely medical intervention.

Strengthening Infrastructure and Workforce: Investing in healthcare infrastructure and human resources is critical for improving health outcomes in tribal districts. Aspirational district like Nandurbar, a High-burden region, should be designated for priority healthcare upgrades, including the establishment of telemedicine hubs and 24/7 PHCs equipped with emergency obstetric care. Providing incentives such as hazard pay, housing, and career advancement opportunities for healthcare professionals serving in tribal areas can help address the persistent shortage of medical personnel. Additionally, reserving seats for tribal students in medical and nursing colleges can foster greater representation, build trust within the community, and encourage long-term engagement in tribal healthcare services.

Nandurbar: A Tribal Aspirational District at the Crossroads Nandurbar, an aspirational district in

Maharashtra with a predominantly tribal population including communities such as the Bhil and Warli, presents a complex public health landscape characterized by both challenges and emerging interventions. The region continues to face significant health disparities, with a high prevalence of anemia among tribal women (approximately 65%) and a notable carrier rate of sickle cell disease (SCD) in adjacent districts exceeding 15%. Geographic remoteness contributes to healthcare accessibility issues, as around 35% of villages lack all-weather road connectivity. The district's healthcare workforce is limited, with a doctor-patient ratio of approximately 1:15,000, which is below the state average. Sociocultural factors, including the use of traditional healing practices and vaccine hesitancy, may influence health-seeking behaviors and service utilization. Since its designation as an aspirational district in 2018, Nandurbar has benefited from targeted public health initiatives such as ICMR-NIRTH-led SCD screening programs and fortified rice distribution. Nevertheless, infrastructural limitations—including approximately 45% vacancy in primary health center (PHC) positions—and low uptake of government health schemes (12%) indicate areas requiring further support. Sustainable improvement may be facilitated through culturally sensitive community engagement, enhancement of telemedicine capabilities, and the inclusion of local youth as health advocates, ultimately aiming to reduce health inequities in this tribal region of Maharashtra.

Case Study: The Gadchiroli Model

Gadchiroli, a tribal-dominated district in Maharashtra, has emerged as a unique example of human development progress among Scheduled Tribes (STs) despite facing significant socio-economic and geographic challenges. Unlike neighboring districts such as Dantewada and Bastar in Chhattisgarh, where literacy rates remain as low as 30.2% and 43.9%, respectively, Gadchiroli has achieved a literacy rate of 70.6% (Census 2011). The district's Gross Enrolment Ratio in schools stands at 80.7%, and Infant Mortality Rate (IMR) has significantly declined from 64 per 1,000 live births in 2003 to 36 per 1,000 in 2010 (Maharashtra Human Development Report, 2012). These improvements reflect a combination of government initiatives, community mobilization, and non-governmental interventions aimed at improving the quality of life in tribal regions (Santhakumar & Mishra, 2018).

Beyond economic development, targeted health initiatives have played a crucial role in improving public health outcomes. Organizations such as Amhi Amchya Arogyasathi (AAA) and SEARCH have led efforts to provide mobile health clinics, neonatal care programs, and community-based nutrition support. The home-based neonatal care program developed by Dr. Abhay and Rani Bang has been widely recognized for significantly reducing neonatal mortality rates in remote tribal settlements (Bang et al., 2018).

A key aspect of these interventions has been the focus on combating malnutrition and anemia, prevalent among tribal women and children. The distribution of iron-fortified jaggery to 5,000 women, combined with awareness campaigns on dietary diversity and hygiene, has helped address iron-deficiency anemia. Additionally, community-led agricultural initiatives have encouraged the cultivation of traditional nutrient-rich crops like millets, pulses, and leafy vegetables to improve dietary intake and food security (Santhakumar & Mishra, 2018). The district has also seen a growing movement against alcohol addiction, with community-led Sharab Mukti Andolans (Freedom from Alcohol Movements) working to curb alcohol abuse and its associated social issues.

Despite these successes, Gadchiroli continues to face challenges that require sustained attention. High fertility rates and large family sizes may pose future risks to per capita land and resource availability. Additionally, while community rights over forests have improved economic conditions, industrialization and mining activities in the region threaten both environmental sustainability and indigenous livelihoods. Ensuring that tribal communities have a say in resource extraction policies will be critical to maintaining the delicate balance between development and conservation.

Moreover, while health interventions have reduced neonatal and infant mortality, access to specialized healthcare services remains limited. Strengthening telemedicine infrastructure, expanding PHC coverage, and incentivizing healthcare professionals to serve in tribal areas will be necessary to sustain these improvements.

Conclusion

Maharashtra's tribal health crisis requires a shift from top-down, biomedical approaches to community-driven solutions. Integrating traditional practices with modern medicine, strengthening infrastructure, and addressing social determinants of health can pave the way for meaningful progress. As Amartya Sen aptly stated, *"Health equity is central to social justice."* Achieving this equity for Maharashtra's tribal communities is an urgent and moral imperative.

■ ■ ■

Original Research Article

A Retrospective Study on Analysis of Trends in Emergency Code Activations in a Tertiary Care Hospital in Raigad District, Maharashtra.

Dr. Sherly Chettiar[1], Dr. Philomena Isaac[2], Dr. B. S. Nagaonkar[3]
1. MHA Student, MGM School Of Biomedical Sciences, Kamothe, Navi Mumbai
2. Chief of Quality, MGM Medical College & Hospital, Kamothe, Navi Mumbai | Email: sherlylouis5@gmail.com
3. Faculty and Course Co-ordinator, MHA, MPH and Clinical UG and PG Courses MGM School Of Biomedical Sciences, Kamothe, Navi Mumbai

Abstract-

Background: Emergency codes in hospitals are standardized color-coded alerts that communicate important, time-sensitive information to hospital staff, enabling them to respond quickly and appropriately to various situations. **Aim:** To analyse trends in Emergency Code activations in the hospital. **Objectives:** To identify trends and patterns of emergency colour codes during different periods and different areas of the hospital in order to facilitate emergency preparedness and resource allocation. To identify abnormal patterns in the trends of emergency code activation, and assess the root cause of such patterns. **Material and Methods:** The present study is a retrospective observational study on the activation of emergency codes conducted in a tertiary care hospital for a period of 8 months from January 2024 to August 2024. **Results:** Out of 61 Emergency Code activations, there were 36 Code Blue activations (59.01%), 19 Code Purple activations (31.14%), 1 Code Pink activation (1.63%), 3 Code Orange activations (4.91%), and 2 Code Red activations (3.27). The maximum number of incidents were seen to have occurred in the General wards (61%) where 36 Code Blue incidents and 19 Code Purple incidents had taken place.

Keywords: Emergency colour codes, Emergency preparedness, Patient safety.

INTRODUCTION

An emergency is a situation that requires immediate and effective action to protect life or property, whether caused by humans or natural disasters. Therefore, it is crucial to have a well-coordinated and well-planned emergency response.[1][2] Emergency codes in hospitals are standardized color-coded alerts that communicate important, time-sensitive information to hospital staff and prevent confusion, enabling them to respond quickly and appropriately to various emergency situations such as patients who require cardiopulmonary resuscitation (CPR) or to address mass casualties caused by disasters.[6] Hospitals use colour codes to denote internal (i.e. patient respiratory distress), or external (i.e. natural disasters) emergencies, via public announcement systems.[9] Emergency codes in hospitals serve as a critical means of ensuring swift, effective responses to a variety of urgent situations. These codes are essential for maintaining the safety of patients, staff, and visitors, as they help to prevent confusion and simplify responses in emergencies. When a code is called, a pre-designated team of physicians, nurses and other personnel respond swiftly and efficiently, based on their training.[3] These codes are used to inform hospital personnel about situations ranging from medical emergencies and fire evacuations to threats of violence or biological hazards. For example, code "blue" means cardiac emergency, communication is done by announcing code colour and brief location description (e.g. "Code blue, First floor, room no. twelve") [5] Hospital staff are trained to respond to these codes as part of their regular emergency preparedness training. Understanding these codes and knowing how to respond can significantly improve patient outcomes, prevent panic, and minimize harm in emergency scenarios.

Colour Code	Indication
Code Blue	Medical Emergency (Cardiac or Respiratory Arrest)
Code Red	Fire emergency
Code Purple	Violent or Aggressive Person
Code Orange	Disaster or Mass Casualty Incident
Code Pink	Abduction of a Child

AIMS AND OBJECTIVES:

- To analyse trends in Emergency Code activations in the hospital.
- To identify trends and patterns of emergency colour code activation during different periods over a duration of 8 months (from January

2024- October 2024).

- To identify trends and patterns of emergency code activations in different areas of the hospital.
- To identify and assess the cause of abnormal patterns in the trends of emergency code activation.

MATERIAL & METHODS: Data for this project was collected through primary sources such as records of emergency code activation maintained by the telephone operator in the hospital, informal interviews of the staff in the department involved in the incidents, and documented incident reports of emergency code activations received in the Quality department. Any emergency code activated for the purpose of mock drills, any emergency code announced for the purpose of testing the central sound system, fire alarms activated for the purpose of testing sprinklers were excluded. Microsoft Excel was used for compilation of data.

OBSERVATIONS: Out of 61 Emergency Code activations, there were 36 Code Blue activations (59.01%), 19 Code Purple activations (31.14%), 1 Code Pink activations (1.63%), 3 Code Orange activations (4.91%), and 2 Code Red activations (3.27). Out of the 19 Code Purple incidents, a sudden surge was noticed, in the month of August 2024, the total number of incidents being 8 (13.11%). The maximum number of incidents were seen to have occurred in the General wards (61%) where 36 Code Blue incidents and 19 Code Purple incidents had taken place

Emergency code	Total number of activations from January 2024 - August 2024
Code Blue	36
Code Purple	19
Code Orange	03
Code Red	02
Code Pink	01

Table 1: Total number of specific emergency colour code activations from January 2024 to August 2024

The higher incident rate for Code Blue can be attributed to the fact that the hospital being a tertiary care centre often gets patients in critical conditions referred to the hospital from other primary and secondary care centres. However, the alarming increase in the number of incidents of Code Purple was a matter of concern for the hospital as it directly impacts the safety and security of the patients as well as the hospital staff. Hence these incidents were further investigated and it was found that the common cause of these incidents of violence were-

1) Delay in process of discharge / Handing over of dead body to patients' relatives in time.
2) Lack of counselling.
3) Lack of security surveillance measures.
4) Unrealistic expectations of patient and their relatives.

RECOMMENDATIONS:

1) **Enhanced counselling-** Enhanced communication between staff, patients and relatives of patients undergoing major surgeries, emergency interventions or relatives of deceased patients ensuring transparency about treatment plans, expected timelines, and any delays. Counselling should be done by senior or experienced staff.
2) **Sensitivity training of staff-** Training of all staff members including Doctors, Nurses, Security personnels and housekeeping staff on compassionate communication and how to address the emotional needs of relatives during a difficult time. Also, TAT for handing over of dead body should be decided.
3) **Crowd control-** Measures must be taken to control and reduce crowding of patients and their relatives, especially in critical areas like Casualty, ICUs, and outside OT.
4) **Visiting hours and Attendant Restrictions-** Visiting hours and the number of attendants can be controlled, allowing only one attendant per patient.
5) **Enhanced security screening-** Security protocols can be reviewed to strengthen security and prevent the entry of individuals under the influence of potentially harmful substances like alcohol or drugs into the hospital.
6) **Post-Incident Support-** Support for staff after violent incidents, including counselling, debriefing sessions, and ongoing training to learn from each event can be provided.
7) **Inclusion of additional codes-** Additional emergency colour codes can be introduced into the hospital's policy that will facilitate in managing other emergency situations such as breakout of a communicable disease in the hospital, spill of hazardous chemicals, bomb

threat, internal disaster, and external disaster.

IMPACT OF STUDY:

1) Counselling done in the presence of or by a senior or experienced staff for relatives of patients undergoing major surgeries, emergency interventions, change in plan of surgery or relatives of a deceased patient, leads to improved trust and transparency, emotional support, and thus reduces stress and anxiety which eventually leads to reduced incidents of violence. Training exercises and conferences should be conducted to enhance preparedness and ensure that everyone understands their responsibilities during emergencies.[7]
2) Sensitivity training of staff enhances the family support and empathy in care, facilitating transparency in difficult situations. Effective communication helps in reducing family conflict and complaints, and thus prevents emotional outbursts. Clear communication is also a key element to ensure a quick response to protect patients, visitors, and staff and hospital property.[8] It is vital for providing high-quality patient care and maintaining a safe environment for patients, visitors, and hospital personnel. In emergencies where time is critical, prompt and appropriate communication followed by coordinated actions are crucial.[4]
3) Critical care areas, like ICUs or the emergency department, are already be stressful for patients and their families. Overcrowding in these spaces can exacerbate anxiety for both patients and their relatives. Reducing the number of people in these areas can promote a quieter, more focused environment, allowing patients to rest and recover in peace. By controlling crowding and ensuring space is available for emergencies, hospitals are better prepared to manage unforeseen crises.
4) Regulating the number of visitors in critical areas, would provide families with clear guidelines on visiting policies. This can reduce confusion and frustration, while maintaining an orderly and respectful environment. Directing patient's relatives to designated waiting or support areas gives them space to process emotions, receive updates, and interact with staff in a more controlled, less stressful environment.
5) Individuals under the influence of alcohol and drugs are likely to show aggression, agitation, or erratic behaviour, particularly in high-stress environments like hospitals. Tightened security can reduce the likelihood of incidents where intoxicated individuals harm themselves, other patients, or healthcare staff.
6) Counselling sessions helps employees process traumatic events and address any emotional or mental health issues that may arise from violent incidents. This can prevent long-term psychological damage, such as post-traumatic stress disorder (PTSD), anxiety, or depression. Immediate access to mental health support can reduce feelings of stress, anxiety, and emotional strain, promoting a healthier work environment.
7) Introducing additional emergency colour codes into a hospital's policy can significantly improve the efficiency of managing a variety of emergency situations, ensuring that staff can quickly and effectively respond to crises.

REFERENCES:

1) Jeong S, Lee O. Correlations between emergency code awareness and disaster nursing competencies among clinical nurses: A cross-sectional study. J Nurs Manag. 2020;28(6):1326-34
2) Wandile BV, Kanyal D. Knowledge of Emergency Colour Codes among Healthcare Workers in a Tertiary Care Hospital of Wardha, Maharashtra, India: A Cross-sectional Study. Journal of Clinical & Diagnostic Research. 2023 Aug 1;17(8).
3) Ashworth I, El Dali A, ElDeib O, Altoub A, Pasha F, Butt T. Variability of emergency color codes for critical events between hospitals in Riyadh. Annals of Saudi Medicine. 2015 Nov;35(6): 450-5.
4) Saxena D, Devi TN, Agarwal T, Kumar BR, Singh NP, Jain PK. Knowledge and awareness regarding emergency colour codes among resident doctors and nursing staffs of tertiary care facility of district Etawah. Int J HealthCare Edu & Med Inform. 2021;8(1):12-18. Doi: 10.24321/2455.9199.202109.
5) Kurien N, Choudhary M. Hospital emergency color codes: A way to disseminate unexpected. Int. J. Emerg. Trauma Nurs. 2019;5:1-5.
6) Lee HJ, Lee O. Perceptions of hospital emergency color codes among hospital employees in Korea. International emergency nursing. 2018 Sep 1;40:6-11.

7) WANDILE BV, KANYAL D. Knowledge of emergency colour codes among healthcare workers in a tertiary care hospital of Wardha, Maharashtra, India: A cross-sectional study. J Clin Diagn Res. 2023 Aug 1;17(2):10-3.Nilakantam SR, Ravi MD, Bahuguna J, Dayananda M. Role of emergency response codes in handling hospital emergencies – An experience of protocol designing, development, and implementation in a large multispecialty tertiary care teaching hospital, Mysuru, India. Int J Scientific Study. 2020;8(10):56-61.

8) Nilakantam SR, Ravi MD, Bahuguna J, Dayananda M. Role of emergency response codes in handling hospital emergencies – An experience of protocol designing, development, and implementation in a large multispecialty tertiary care teaching hospital, Mysuru, India. Int J Scientific Study. 2020;8(10):56-61.

9) Mapp A, Goldsack J, Carandang L, Buehler JW, Sonnad SS. Emergency codes: A study of hospital attitudes and practices. Healthc Prot Manage. 2015;31(2):36-47.

IPHA Activity Cervical Cancer Screening Camp

World Cancer Day is observed every year on 4th February to raise worldwide awareness and inspire action for a cancer free world. The Theme for this year is United by Unique. To commemorate this day with the initiative of Maharashtra state branch of IPHA a Cervical Cancer Screening Camp was organized by MGM Medical College, Kamothe & CKT College, New Panvel on 18th February 25. The PAP smear tests of all women were done free of cost by the team of pathologists of medical college and the beneficiaries were counselled about Cervical Cancer screening & early detection by IPHA Member Dr Sunila Sanjeev, both a Public Health Expert & Gynaecologist. The students of the CKT college committed to spread the message further in neighbouring rural area and create further awareness in society. The event was inaugurated by IPHA Maharashtra state President Dr Prasad Waingankar & NSS Chief Program Officer of CKT College, Dr. S. N. Parkale.

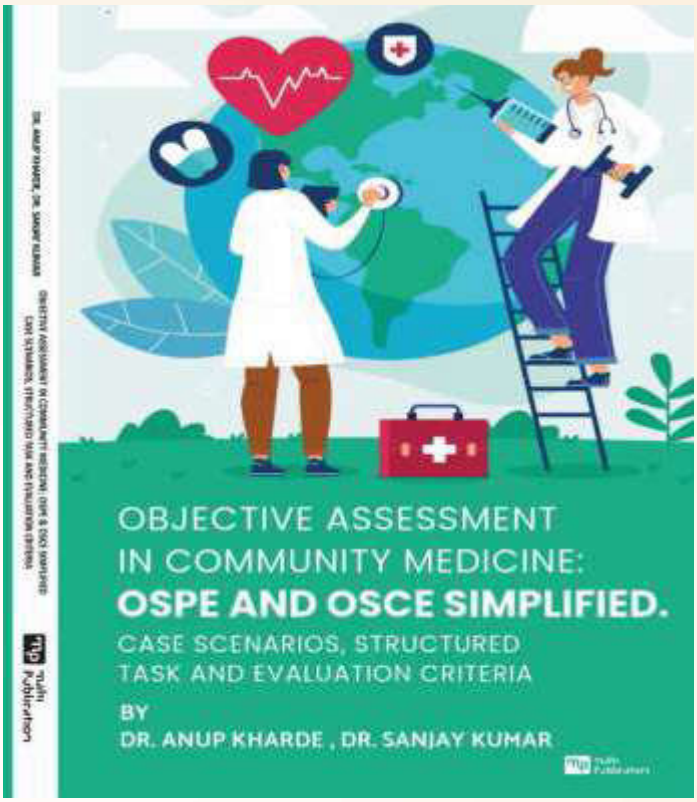
Book Review

"Objective Assessments in Community Medicine: OSPE and OSCE Simplified"

Authored by Dr. Anup Kharde & Prof. (Dr.) Sanjay Kumar
Dr. Harshal Tukaram Pandve, MBBS, MD (PSM)
Professor & Head, Dept. of Community Medicine,
PCMC's PGI & YCM Hospital, Pimpri, Pune-18

Introduction:

In the evolving landscape of medical education, objective assessment methods have gained significant importance, particularly in Community Medicine. The book **"Objective Assessments in Community Medicine: OSPE and OSCE Simplified"** by **Dr. Anup Kharde & Prof. (Dr.) Sanjay Kumar** aims to bridge the gap between theoretical understanding and practical evaluation. This book is a well-structured guide for both undergraduate and postgraduate students, as well as faculty members involved in medical education, focusing on Objective Structured Practical Examination (OSPE) and Objective Structured Clinical Examination (OSCE).



Content & Structure:

The book is systematically divided into sections that introduce the fundamental concepts of OSPE and OSCE, their relevance in medical education, and practical approaches to implementing these assessment methods effectively. The authors have carefully structured the content to cater to different levels of learners, ensuring clarity and ease of understanding.

1. **Introduction to OSPE and OSCE:**
   - The book provides a detailed explanation of OSPE and OSCE, discussing their historical background, importance in competency-based medical education (CBME), and how they differ from traditional assessment methods.
2. **Framework and Methodology:**
   - The authors outline the core framework for setting up OSPE and OSCE stations, including station design, checklists, and marking schemes.
   - A step-by-step approach to constructing effective assessment stations makes it easier for faculty to implement these methods in their curriculum.
3. **Application in Community Medicine:**
   - A notable strength of the book is its contextualization of OSPE and OSCE in Community Medicine, an area often overlooked in objective assessments.
   - The book covers various practical scenarios, including epidemiological case studies, public health interventions, and clinical skills in primary healthcare settings.
4. **Sample Questions and Model Stations:**
   - The inclusion of well-structured sample questions and model stations enhances the book's utility as a practical guide.
   - The scenarios are designed to reflect real-world public health challenges, allowing students to develop a problem-solving mindset.
5. **Common Challenges and Solutions:**
   - The book addresses common pitfalls in

conducting OSPE and OSCE, offering insightful solutions to improve assessment quality and fairness.

- Practical tips for examiners and students ensure a smooth evaluation process.

Strengths of the Book:

- **Clarity and Simplicity:** The language is simple yet comprehensive, making it accessible to students and faculty alike.
- **Practical Orientation:** The book is highly application-focused, with real-life examples and model stations tailored for Community Medicine.
- **Alignment with CBME Guidelines:** The content aligns with modern medical education principles, supporting the Competency-Based Medical Education (CBME) curriculum.
- **Illustrations and Checklists:** The inclusion of diagrams, flowcharts, and checklists enhances the learning experience.

Areas for Improvement:

- **More Case-Based Scenarios:** While the book covers essential topics, adding more case-based discussions, especially from rural and urban health settings, could enhance its applicability.
- **Integration with Digital Tools:** Given the increasing use of technology in assessments, a discussion on incorporating digital platforms into OSPE and OSCE could be beneficial.
- **Feedback Mechanisms:** A dedicated section on how students can use OSPE/OSCE feedback to improve their competencies would add value.

Conclusion:

"Objective Assessments in Community Medicine: OSPE and OSCE Simplified" is a valuable contribution to medical education, particularly for students and faculty in Community Medicine. The book effectively demystifies OSPE and OSCE, making them accessible and implementable. With its practical approach and well-structured content, it serves as an essential guide for institutions aiming to refine their assessment methodologies. It is a must-read for medical educators and students who seek a structured approach to competency-based assessment in Community Medicine.

■ ■ ■

IMPORTANT PUBLIC HEALTH DAYS JANUARY 2025 TO MARCH 2025

MONTH	DATE	DAY	THEME 2025
JANUARY	24th January	National Girl Child Day	Empowering girls for a bright future
	31st January	Anti-Leprosy Day	Unite, Act, Eliminate Leprosy
FEBRUARY	4th February	World Cancer Day	United by unique
	10th February	National Deworming Day	Eliminate STH: Invest in a healthier future for children
	12th February	Sexual and Reproductive Health Awareness Day	Equity through action
	13th February	International Epilepsy Day	My epilepsy journey
MARCH	3rd March	World Hearing Day	Changing mindsets: empower yourself to make year and hearing care a reality for all
	8th March	International Women's Day	For All Women and Girls : Right, Equality, Empowerment.
	12th March	No Smoking Day	Unmasking the appeal: exposing the industry tactics on tobacco and nicotine products.
	16th March	Measles Immunization Day	Protect every child: measles free future
	20th March	World Oral Health Day	Happy mouth is a happy mind
	22nd march	World Water Day	Glacier Preservation
	24th March	World Tuberculosis Day	Yes we can end TB: commit, invest and deliver.

CONFERENCE REPORT

MHIAPSMIPHACON2025

26th Annual Maharashtra State Joint Conference of IAPSM & IPHA

By Dr. Prashant Solanke, Organizing Chairperson

MHIAPSMIPHACON 2025 was a premier event held in Jalgaon from 16th to 18th January 2025. The pre-conference workshops on 16th January were attended by over 100 participants from across states, while the conference on 17th and 18th attracted over 300 participants, including medical professionals, policymakers, esteemed leaders of healthcare industries, and medical students from premier institutes. It was organized by the Department of Community Medicine of Dr. Ulhas Patil Medical College, Jalgaon.

Aptly titled **"Bridging Gaps and Expanding Boundaries Towards the Right to Health"** many esteemed speakers emphasized the importance of serving underserved, remote areas and focused on expanding healthcare access. The conference featured sessions on innovative healthcare delivery models, the role of technology in healthcare, and the importance of health equity. Experts also highlighted the need for collaborative efforts between various stakeholders to address healthcare challenges and improve access to quality health services for all. The event served as an excellent platform to exchange ideas, discuss emerging trends, and explore new opportunities in the healthcare sector, fostering a deeper understanding how to effectively address gaps in healthcare systems. The interactions between participants provided valuable insights into overcoming the challenges faced by healthcare providers and communities, encouraging a unified approach toward advancing healthcare for all. The conference successfully ignited meaningful discussions and inspired future initiatives aimed at promoting a more inclusive, accessible, and equitable healthcare system.

Goals of the Conference:

- To explore developments in field of Community Medicine
- To facilitates interactions and collaboration in the greats of the field.
- To enhance the Knowledge of attendees by listening to Keynote Speakers.

Pre-Conference Workshops:

The pre conference workshops were held on 16th January 2025. Four halls were assigned for 4 different sessions which were held by experts of the respective field. The 4 Workshops included:

Topic	Resource Faculty
Systematic reviews and meta-analysis"	☐ Dr. Sachin Mumbare ☐ Dr. Pradeep Deshmukh ☐ Dr. J. V. Dixit
How To Write a Research Paper?	☐ Dr. Khadilkar Hrishikesh ☐ Dr. Vedpathak Vinod ☐ Dr. Wadde Satish ☐ Dr. Domple Vijay
Basic of Bibliometric Analysis	☐ Dr. Pravin Pisudde ☐ Dr Manish Taywade ☐ Dr Anil Koparkar ☐ Dr. Abhijit Boratne
Anthropometric Data Analysis Using WHO Anthro Software	☐ Dr. Abhijit P Pakhare ☐ Dr. Abhishek V Raut ☐ Dr. Sudipto P Roy ☐ Dr. Vishal Bankwar

CONFERENCE INAUGURATION

Conference was gracefully inaugurated by lamp lighting by the Dignitaries.

- Padmashree Dr. Ravindra Kolhe
- Padmashree Dr. Smita Kolhe
- Dr. Ulhas Patil (Former MP, Jalgaon)
  President Godavari Foundation
- Dr. Subhash Salunkhe, Senior Advisor PHFI
- Dr. Prasad Waingankar, President IPHA MH
- Dr. Purushottam Giri. President IAPSM MH
- Dr. Deepak Khismatrao, Secretary IPHA MH
- Dr. Harshal Pandve, Secretary IAPSM MH
- Dr. Prashant Solanke Vice President IPHA MH
  Dean, Dr. Ulhas Patil Medical College
- Dr. Aniket Patil

It was followed by releasing the Souvenir of the Conference. All the dignitaries were welcomed with Mementos, floral bouquet. This was followed by enlightening speeches by the Chief Guest, Guest of Honour and other dignitaries. Inauguration was concluded with National Anthem.

IPHA Maharashtra Newsletter Release

26th MHIAPSMIPHA CON-2025

DAY 1

Conference Started at 9:00AM with the session of Dr. Subhash Salunkhe on the Topic Integration of Medical Education and Public Health: Need of the Hour. It was Chaired by Dr. Sushma Thakare and Dr. Bharat Chavhan.

It was followed by Session of Dr. JV Dixit on Dixit Lifestyle for weightloss and Diabetes reversal. It was chaired by Dr. Sarika Patil. This was followed by a lunch break.

This session was followed by the conferences main attraction "Interview of Padmashree Dr. Ravindra Kolhe and Padmashree Dr. Smita Kolhe. The interview was orchestrated by Dr. JV Dixit.

The next session was Bridging Digital Divides in Public Health : Expanding Access to Health Services through Technology by Dr. Meenal Thakare. It was chaired by Dr. Pallavi Uplap and Dr. Amit Gujrathi.

DAY 2

It was followed by Padma Shri Dr. DN Pai Memorial Oration (Evolving Medical Education – Making Learning Interesting and Memorable for Medical Students) by Dr. Sangita Adchitre. It was Chaired by Dr. Priya Kulkarni and Dr. Ashlesha Tawade.

Padma Bhushan, Dr. Banoo Jahangir Coyaji Oration (Reaching underserved senior citizens – need to set exemplary functioning at RHTCs and UHTCs) by Dr. Gajanan Velhal. It was chaired by Dr. Deepak Khismatrao and Dr. Madhura Asturkar.

Dr. Satish pawar was conferred the Padmashree Dr. Subhaschandra Mapuskar Oration (Urban Health Challenges and Solutions). It was chaired by Dr. Prasad Waingankar and Dr. Swarupa Mahore.

The next session was Dr. PSN Reddy Oration (Technology use in Public Health). The Speaker for the session was Dr. Duryodhan Chavhan. It was chaired by Dr. Purushottam Giri and Dr. Shobha Salve.

It was Followed by Dr. D K Ramadwar Memorial Oration (Responsive feeding: building foundations for lifelong well-being) by Dr. Subodh Gupta an Chaired by Dr. Harshal Pandve and Dr. Smita Chavhan.

Dr. Jitendra Bhawalkar was conferred by "Dr. Mrunalini Pathak Memorial Oration (Population Genetics – An Important Knowledge Tool with Public Health Specialists)" it was Chaired by Dr. Abhay Saraf and Dr. Archana Pawar.

The next session lined was "Air pollution and health impact - what we know? what we need to do?" by Dr. Harshal Salve. It was Chaired by Dr. **Adsul** and Dr. Supriya Palwe. It was followed by lunch

The session of Role of Artificial Intelligence in Epidemiology and Public Health by Dr. Purushottam Giri was Chaired by Dr. Supriya Palwe and Dr. Avinash Borkar.

Scientific Paper Presentation

Scientific Paper presentation was carried out in 2 categories, Oral Presentation & Poster Presentation.

The 18 Delegates participated in Poster category while 80 delegates participated in Oral presentation out of which 10 winners were awarded prizes in their respective Categories. The Winners in each category were awarded with a Trophy's and Certificates. The Prize Categories were:

- Dr. Sonaji Jogdand IAPSM Prize (Occupational Health/Environmental Health)
- Dr. Sharangdhar Kanhere IAPSM Prize (Community based Intervention/Appropriate Technology)
- Dr. Vijaya Bhalerao IAPSM Prize (School Health)
- Dr. MV Kulkarni IAPSM Prize (MCH)
- Dr. Saroj Jha IAPSM Prize (Health Education / Gender Issue)
- Dr. Khergaokar IAPSM Prize (Urban Public Health)
- IPHA Prize for Best Paper by Undergraduate Student
- Judge's Prize for Best Paper (Miscellaneous)
- IPHA Best Poster Presentation by Male Presenter
- IPHA Best Poster Presentation by Female Presenter

26th MHIAPSMIPHA CON-2025

LIST OF WINNERS OF SCIENTIFIC PAPER PRESENTATION

AWARD	WINNER	DESIGNATION	INSTITUTE
ORAL PAPER PRESENTATION			
Dr. Saroj Jha Award	Dr. Laxmi Naorem	PG student	GMC Akola
Dr.Khergaokar Award	Dr. Anwaya Magare	Associate Professor	MGM MC Chh. Sambhaji nagar
Dr.MV Kulkarni Award	Dr. Balamurugan S	PG student	IGGMC Nagpur
	Dr. Anuva KApoor	PG student	AIIMS NAgpur
Dr. Vijaya Bhalerao Award	Dr. Gauri Oka	Tutor	Bharti Vidyapeeth Medical College, Pune
Dr. Sonaji Jogdand Award	Dr. Pooja Sohil	PG student	Bharti Vidyapeeth Medical College, Pune
Dr. Sharangdhar Kanhere Award	Dr. Kunal Kalaskar	PG student	BKL Walawalkar RMC Chiplun
IPHA Award for UG student	Uditanshusingh Bahure	2nd year MBBS	DY Patil medical College, Navi Mumbai
Award for MIscellenues category Paper	Dr. Vivekanand Chachere	PG student	GMC Nagpur

AWARD	WINNER	DESIGNATION	INSTITUTE
POSTER PRESENTATION			
MALE PRESENTER	Dr. Kiran Keni	Asst. Professor	MGM MC Vashi
FEMALE PRESENTER	Dr. Prachi Ingle	PG student	IGGMC Nagpur

Padavidhar (UG) Sanshodhan Prakalp Anudan Abstracts

Awareness, willingness and practices of Telemedicine for management of selected chronic diseases amongst patients attending NCD Clinic at Urban Health Centre in Raigad District, Maharashtra

UG Student: Parnika Joshi, MGM Medical College, Navi Mumbai
Guide: Dr. Nisha Relwani, MGM Medical College, Navi Mumbai

Background: Telemedicine refers to the use of electronic information and communication technologies to provide and support healthcare especially when participants are separated by distance. Chronic diseases are among the leading causes of mortality, disability, and health expenditure globally, making continuous monitoring crucial for their effective management.

Objectives:

1. To assess patients' awareness of telemedicine.
2. To evaluate patients' willingness and practices regarding the use of telemedicine.
3. To identify factors contributing to patients' unwillingness to adopt telemedicine.

Methodology: This descriptive, cross-sectional study was conducted at an Urban Health Centre in Raigad District, Maharashtra, among 130 patients aged 30 and above, registered with the non-communicable disease (NCD) clinic. A pre-validated questionnaire, divided into sections on demographics, awareness of telemedicine, willingness, practices, and barriers, was administered in local languages (Marathi, Hindi). Data were analysed using SPSS Version 26, with socio-economic status categorized using the Revised BG Prasad Socioeconomic Status Classification.

Results: Only 17.8% of patients knew about telemedicine, reflecting a significant knowledge gap among the majority (82.2%). 89.1% (n=118) of participants were unwilling to use telemedicine, citing technological barriers and preference for in-person consultations. While 54.2% owned smartphones, only 31.9% could effectively use them for healthcare purposes, indicating a digital literacy gap.

Conclusion and Recommendations: Telemedicine has the potential to significantly improve healthcare access and outcomes for patients with chronic conditions. By leveraging this technology, healthcare providers can enhance care delivery and improve the quality of life for patients at urban health centres and beyond. The lack of educational campaigns or information dissemination about telemedicine services within the community could be a primary reason for the lack of awareness. Additionally, cultural beliefs, language barriers, and limited access to technology or internet connectivity might further exacerbate the lack of awareness among these patients.

Keywords: Telemedicine, Awareness, Willingness, Chronic Diseases, Urban Health

Study on the Prevalence of Musculoskeletal Disorders and its Associated Factors In the Office Staff of Higher Education Institutions

UG Student: Sahana Shetty, MGM Medical College, Kamothe, Navi Mumbai
Guide: Dr Sunila Sanjeev, Associate Professor, Community Medicine, MGM Medical College, Kamothe, Navi Mumbai

ABSTRACT

Background: During working hours, employees frequently experience local muscle tension such as repetitive operations, poor working posture, excessive force load, continuous muscle tension, vibration contact, and other health effects caused by adverse working conditions. Work- related musculoskeletal disorders (WMSDs) caused by adverse ergonomics have also become more pronounced. The incidence of soft tissue injuries has increased with the increase in the number of people who rely on computers for their tasks. Studies have illuminated the intricate relationship between workplace ergonomics, sedentary behavior, and the onset of MSDs in a professional environment. This study was conducted to assess the prevalence and pattern of Musculoskeletal disorders (MSD) in office workers of Higher Education Institutions (HEI) in India and to identify associated factors.

Methods: A cross-sectional study was conducted using a simple random sample of 50% of staff from each institution. After obtaining written informed consent, a predesigned and pre- structured questionnaire was used to collect data on sociodemographic characteristics, work profiles and behavioral patterns through personal interviews. The Nordic Musculoskeletal Questionnaire was used to assess the presence, pattern and severity of MSDs among the participants.

Results: The overall prevalence of WMSDs among the office staff was 85.43%. The lower back (66.02%) was the most commonly reported body region, followed by the neck (55.33%) and lower back (42.72%). Severe pain was reported in the neck (18.44%), followed by the upper back (17.48%). The presence of WMSD had a significant positive relationship ($p< 0.05$) with individual factors such as gender, age, use of spectacles and physical activity along with work profile factors and behavioral patterns such as a designated workstation, hours of computer work, type of device used, eye level of monitor, use of height adjustable chairs and regular breaks.

Conclusion: There is a high prevalence of musculoskeletal disorders among office workers of HEI which should be addressed.

Keywords: Work-related musculoskeletal disorders, Nordic Musculoskeletal Questionnaire, Higher Education Institutions, Computer.

A study on treatment adherence and its association with out of pocket expenditure in Type 2 Diabetes Mellitus patients

UG Student : Revaa Kovil, MGM Medical College, Navi Mumbai
Guide : Major (Dr.) Ashlesha Tawde, MGM Medical College, Mumbai

Background : Diabetes is a major global concern with India contributing significantly to its burden. Individuals face financial hardships due to the rising direct costs associated with the chronic nature of the disease. India relies heavily on out of pocket expenditure for its healthcare needs which is associated with a poor purchasing power in the lower socio-economic population. This leads to a low treatment adherence amongst this population furthering the complications of the disease and increasing overall healthcare costs.

Aim : Our Aim was to Study the Association between Out Of Pocket Expenditure and Adherence to Treatment in Type 2 Diabetes Mellitus Patients at a Primary Health Care centre in Maharashtra.

Material and Methods : A cross sectional, observational study was conducted at a Primary Health Care centre among 110 Participants through a structured interview and pre-tested, pre-validated questionnaire with a 12 month recall period for in patient data.Annual OPD costs were calculated by number of visits multiplied by cost per visit whereas annual medication and diagnostic costs were calculated by multiplying monthly costs by 12. The clinical parameters (fasting and random blood sugar) and expenditure particulars were gathered from the participants and verified using secondary sources such as bills, medical records, prescriptions, lab reports and medicine blister packs available during their visit. Treatment adherence was assessed using the 10 item version of the Medical Adherence Rating Scale (©Professor Rob Horne) which assessed both intentional and non intentional medical non adherence.

Results : Patients with complications had higher health care costs. A trend towards higher adherence amongst patients where out of pocket expenditure did not play a factor was noted. Annual Income had a positive correlation with adherence to treatment whereas Annual OPD cost and Hospitalisation Costs had a negative correlation with treatment adherence among the participants of our study.

Conclusion : Education status, Annual Income, Duration of Diabetes, Annual OPD cost and Hospitalisation Cost affect treatment adherence.

Key words: Type 2 Diabetes Mellitus, Adherence, Out of pocket expenditure

A study on Internet addiction (IA) and Internet Gaming Disorder (IGD) and its effect on Sleep and Mental Health of undergraduate medical students in Konkan Region- A Mixed Method Research

UG Student: Balwant Masurkar, BKL Walawalkar Medical College, Chiplun
Guide: Dr. Avinash Borkar, BKL Walawalkar Medical College, Chiplun

Background: Use of internet has increased exponentially worldwide with prevalence of internet addiction ranging from 1.6% to 18 % or even higher. Depression and insomnia has been linked with internet addiction and overuse in several studies and college students appear more vulnerable in developing a dependence on the internet.

Objectives: To find the prevalence of internet addiction (IA), internet gaming addiction (IGD), insomnia and depression among medical graduate students.

Methodology: A mixed method approach with quantitative and qualitative was conducted in 402 undergraduate medical students of a rural medical college in Konkan region of Maharashtra from Aug 2023 to Feb 2024. Information was collected on a semi-structured, self-administered performa containing socio-demographic details and questionnaire related to internet use. Focus group discussion (FGD) was conducted on 42 students selected based on a higher prevalence of IA and IGD.

Results: The mean age of participants was 20.39 ± 1.43 year. The female students were 44.77% and 55.22% were males. Overall prevalence of Internet addiction, internet gaming disorder, insomnia and depression was 41.04%, 20.89%, 36.56% and 14.42% students, respectively. IA, IGD and Insomnia was more in female while depression was same in both male and female students. The highest prevalence of IA was observed among 3rd-year MBBS students while IGD, Insomnia and Depression was more prevalent among recently admitted 1st-year students. Internet addiction was more among those living in hostel as compared to those living outside.

Conclusion: Internet addiction was present in more than one-third of under-graduate medical students and depression and insomnia were also more among internet addicts. The study concluded that IA and IGD are issues of serious concern and appropriate measures should be taken to reduce the adverse effect of Internet and Internet gaming such as depression, anxiety, stress and insomnia.

Keywords: Insomnia, depression, medical, disorder, prevalence, social

RESEARCH GRANT ANNOUNCEMENT

Padavidhar (UG) Sanshodhan Prakalp Anudan - 2025

In order to promote interest for research among **undergraduate medical students**, there is a need to encourage research aptitude among under-graduate medical students to undertake small research projects. The students aspire recognition and may need some financial support to pursue these small research projects. As a response to this need, Indian Public Health Association, Maharashtra Branch is offering last few years financial support to deserving research proposals from under-graduate students from Medical Colleges located in Maharashtra State. Since 2023 funding support is being provided from UNICEF Maharashtra Office for this activity.

- Research project proposal should be submitted through IPHA Maharashtra website only, on or before 31st May 2025
- The proposals will be scrutinized by panel of experts and five best projects will be awarded funding of Rs. 10,000/- each.
- The list of accepted proposals will be declared on IPHA Maharashtra Website by end of June 2025.
- The selected students will do the research under guidance of IPHA Member Community Medicine faculty as per the study proposal and inform the progress of study through Interim Report by end of October 2025.
- The final project report is to be submitted on or before 31st December 2025.
- Please Note:

Research proposal should be accompanied by –

- Institution Ethics Committee (IEC) approval letter (In case IEC approval is in process, copy of submitting the research proposal to IEC should be provided at the time of proposal submission. However, funds will be released to selected student only after submission of IEC approval.)
- Forwarding letter from Head of Community Medicine Department
- IPHA Membership number of Guide

For Details Visit: www.iphamaha.org
For any query / difficulty -
Email: iphamaha@gmail.com

Padvyuttar (PG) Sanshodhan Prakalp Anudan – 2025

Many **postgraduate students of Community Medicine/ Public Health** wish to conduct research studies other than mandatory dissertation, during their Postgraduation. One of the obstacles in conducting good quality research, especially for a student, is lack of funding. As a response to this need, IPHA Maharashtra Branch started this scheme in 2021, offering financial support to deserving research proposals from PG students of Public Health/ Community Medicine from Medical Colleges located in Maharashtra State with funding support from UNICEF Maharashtra Office.

- Guide should be IPHA member. ONE teacher can guide only ONE student and ONE student can submit only ONE research proposal.
- Applicant (Principal Investigator) should be a post-graduate student of Community Medicine OR master's in Public Health OR Community Nursing OR Community Dentistry AND preferably IPHA Member.
- Research proposed should be community based and distinctly different from student's dissertation topic. (To be certified by Head of Department)
- Topic of research project should contribute to Public Health knowledge base. More weightage will be given to Implementation Research, Research on Maternal & Child Health, Malnutrition, Vaccines, HIV/AIDS, TB, Emerging and Rare Diseases, Disease Surveillance, Lifestyle Disorders and Recent Advances in Public Health. Avoid submitting KAP study proposals.
- The project proposal should be submitted through IPHA Maharashtra website only, on or before 31st May 2025 with IEC Approval.
- The proposal will be scrutinized by panel of experts and the selected FIVE best projects will be declared on IPHA Website by end of June 2025. These will be awarded funding of Rs. 15,000/- each.
- The selected students to submit final project report by December 2025.

For Details Visit: www.iphamaha.org
For any query / difficulty -
Email: iphamaha@gmail.com

APPEAL

The Indian Public Health Association (IPHA) existing since 1956 is a professional registered body (Society Act No. S/2809 of 1957 – 58) committed to promotion and advancement of public health and allied sciences in India, protection and promotion of health of the people of the country, and promotion of co-operation and fellowship among the members of the association. IPHA has local branches in almost all states of the country. Any professional graduate, MBBS or any equivalent degree recognized by any Indian university in Indian System of Medicine / Dentistry (BDS) / Engineering (BE) / Nursing (B Sc Nursing) / Veterinary (BV Sc & AH) are eligible to be ordinary & life member of the association after paying the necessary subscription. We, the executive committee members of IPHA – Maharashtra Branch sincerely appeal the eligible qualified individuals to become the life members of the organization and enhance our strength and visibility. Kindly visit National IPHA website, www.iphaonline.org to download the application form and for further official procedures of payment of membership fee. If you need any help in this regard please feel free to contact Secretary, IPHA – Maharashtra Branch on phone (022 - 2743 79 96 / 97) Email : iphamaha@gmail.com

IPHA Maharashtra Secretariat

Department of Community Medicine,
Mahatma Gandhi Mission
Medical College,
Kamothe, Navi Mumbai – 410209
Tel: 022-2743 79 96/97
Mobile: +91 9011062306, 9324714313
Email : iphamaha@gmail.com
Web: www.iphamaha.org

Executive Committee (2024-27) Maharashtra State Branch

President :-
Dr. Prasad Waingankar,
Professor & Head, Dept. of Community Medicine
Mahatma Gandhi Mission Medical College,
Kamothe, Navi Mumbai.

Immediate Past President:-
Dr. Gajanan Velhal,
Professor & Head, Dept. of Community Medicine,
B K L Walawalkar Rural Medical College, Sawarde,
Taluka - Chiplun, Dist. - Ratnagiri.

Vice-President :-
Dr. Prashant Solanke
Dean, Dr. Ulhas Patil Medical College, Jalgaon.

Secretary :-
Dr. Deepak Khismatrao
Senior Technical Specialist,
AIC, FIND, India.

Joint Secretary :-
Dr. Varsha Vaidya
Professor, Dept. of Community Medicine
Bharati Vidyapeeth (DU) Medical College, Pune.

Treasurer :-
Dr. Nandkumar Salunke
Assistant Professor, Dept. of Community Medicine
B. J. Govt. Medical College, Pune.

Executive Committee Members :-

- **Dr. Reshma Patil,**
  Professor & Head, Dept. of Community Medicine,
  Symbiosis Women's Medical College, Pune.
- **Dr. Vivekanand Giri,**
  Jt. Director & Dy. PHO, Port Health Organization,
  MoHFW, Govt. of India, Mumbai.
- **Major (Dr.) Ashlesha Tawde Kelkar**
  Associate Professor, Dept. of Community Medicine
  Mahatma Gandhi Mission Medical College,
  Kamothe, Navi Mumbai.
- **Dr. Sujata Murarkar**
  Professor, Dept. of Community Medicine
  Bharati Vidyapeeth (DU) Medical College, Pune.
- **Dr. Sudhanshu Mahajan**
  Associate Professor, Dept. of Community Medicine,
  Bharati Vidyapeeth (DU) Medical College, Pune.
- **Dr. Vikas Kshirsagar**
  Assistant Professor, Dept. of Community Medicine
  CSM GMC, Satara.