



IPHA
MAHARASHTRA
BRANCH

Newsletter

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Editor

Dr. Prasad Waingankar

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Editor's Page

New Malaria Vaccine : A Gamechanger ?

In October, this year, the World Health Organization (WHO) has aptly recommended widespread use of the RTS,S/AS01 (RTS,S) Malaria vaccine in a schedule of 4 doses in children from 5 months of age, in sub-Saharan Africa and in other regions with moderate to high *P. falciparum* Malaria transmission.

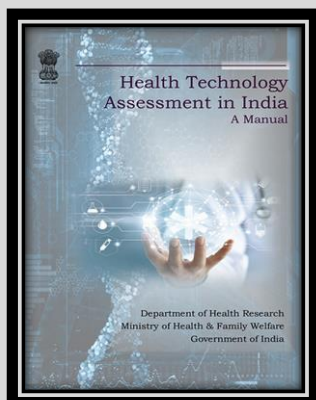
As WHO Director-General Dr Tedros Adhanom Ghebreyesus has rightly said, this is a historic step. In 2019, there were an estimated 22.9 croer cases of Malaria worldwide while estimated number of Malaria deaths stood nearly 4 lakhs. Children under 5 years accounted for 67% of these deaths. The WHO African Region carries a disproportionately high share of the global Malaria burden which was home to 94% of Malaria cases and deaths in 2019.

The recommendation is based on the results of pilot which over the last 2 years, have led the introduction of the RTS,S/AS01 malaria vaccine in Ghana, Kenya and Malawi, through the routine immunization platform, with the support of in-country and external partners, including PATH, UNICEF & GSK, immunizing more than 8 lakh children. The pilot has generated evidence and experience on the feasibility, impact and safety of the RTS,S malaria vaccine in real-life, and routine settings.

Over the last 2 decades, 11 countries have been certified by the WHO Director-General as Malaria-free. Early diagnosis and treatment of malaria reduces disease, prevents deaths and contributes to reducing transmission. However will the introduction of vaccine help in more and more countries to become Malaria-free proving it a gamechanger ? Only time will tell us!!

(Source of Information: WHO)

-Dr. Prasad Waingankar



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How HIV Response Lessons helped COVID 19 control?

EDITORIAL

- A Worldwide Perspective

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Introduction:

As each HIV-infected individual represents a breakdown of HIV primary prevention measures, formative data from representative individuals living with HIV can help shape future primary prevention interventions. HIV from 1986, had laid down the foundation stone for all countries to learn the lessons to combat COVID 19. In this article, we will discuss five lessons which we would have applied to prevent COVID-19 waves.

Six lessons from the HIV response

COVID-19 is very different from HIV in its modes of transmission and the rapid global spread of this pandemic—which has led to the quarantine of one fifth of the world's population—is unprecedented. However, the four decades of response to the HIV epidemic offer lessons that are vital for the fight against COVID-19 and the stigma that it creates. I feel six of the lessons are particularly relevant which would have helped us to prevent the fatal second wave.

1. Scientific evidence and correct information on the pandemic

Effective public health responses to tackle pandemic are based on sound scientific evidence on the modes of transmission of the epidemic, its prevention, and potential treatments. Scientific evidence must guide the actions of political leaders and decision-makers.

Health experts and health institutions—supported by the World Health Organization (WHO)—play an essential role in the development and dissemination of scientific data on the epidemic and response. Evidence on the prevention and management of COVID-19 must be well communicated to the media and communities, with special efforts made to address 'fake news' and debunk myths.(1) In second wave, covid 19 was managed by media more than science.

Positive experiences from countries facing the epidemic should guide responses elsewhere. In the fight against HIV, experiences and lessons from Senegal, Thailand, Switzerland, and Uganda were systematically described and used as good practice to avert the disease.(2) In the context of COVID-19, experiences from China and South Korea are already being used and insights from early successes should be made readily available.

2. Community involvement

Scientific evidence by itself is not sufficient to end fear, combat stigma, and ensure community involvement in responses to epidemics. Specific additional efforts are needed to educate and mobilize communities. AIDS activists remind us that "whatever is done without community involvement is done against them" breaking the pillars of Primary Health Care. Thus, community actors, youth and women's organizations,

patients' associations, artists, opinion leaders, and traditional leaders, amongst others, must be involved meaningfully from the beginning in national responses.(3)

Community engagement is necessary to ensure the acceptance of isolation and other restrictions, and it also has an essential role in monitoring and accountability. In COVID 19 first and second wave in India, community participation is the key factor that didn't work out well.

3. Challenging stigma and protecting human rights

The fight against stigma and discrimination is paramount to any epidemic response. It requires a combination of behavioral and structural interventions at all levels be it individual, community, and national levels. It is a crucial component of rights-based public health responses which involve respect of dignity, the prohibition of torture and degrading treatment, the right to health, and the right to food. Some human rights may be limited or subject to derogation when required for the protection of public health. However, the exceptional measures adopted must be in accordance with the law, limited in time, and necessary to combat the epidemic.

Upholding human rights in times of epidemics is not only an obligation for states. It is also a public health imperative because it enables adherence to public health messages and it helps build the trust of populations affected and those most at risk.

A rights-based approach to health helps ensure that no one is left behind and that particular attention is paid to the most vulnerable. In COVID-19 this includes the elderly, those with pre-existing diseases, prisoners, refugees, and displaced persons.

Even acquired immunodeficiency syndrome (AIDS) had been termed as the "Gay Plague," being theorized as a "divine punishment" for homosexuality.(4) The tradition is reflected in the legislation of many countries that still prevent homosexual men from donating organs and blood. Research has shown that the fear and uncertainty of unknown infections affect human behavior significantly. Panic, illogical beliefs, aggression, blame, and "othering" are some of the unhealthy offshoots.

There have been multiple instances reported in various states of India where individuals have not reported their history of foreign travel or symptoms of COVID-19 due to the fear of facing social boycott and discrimination, leading to low testing and high mortality rates.

4. Global and national leadership at the highest level

Like HIV, the COVID-19 pandemic is not only a health concern, but is also a social, economic, and human security issue. The United Nations Security Council recognised HIV as a peace and security issue on 10 January 2000 when it met to discuss the impact of the epidemic in Africa. This was the first time the Security Council had addressed a health issue as a threat to peace and security, paving the way for the adoption of Resolution 1308 on HIV/AIDS and international peacekeeping operations.

Examples for global and national leadership in HIV/AIDS:

When the National AIDS Control Programme was launched, WHO assisted the GoI in the formulation of strategy and plan for the implementation of prevention and control activities. In 1989, WHO supported the development of a medium-term plan for HIV/AIDS control in Maharashtra, Tamil Nadu, West Bengal,

Manipur and Delhi, with a \$10 million budget mobilised from different sources.

In 1990-91, WHO supported the launch of Unlinked Anonymous Surveillance to track the epidemic. In 1992, following the launch of National AIDS Project-I, WHO assisted in the planning and implementation of a spectrum of activities such as education and awareness programme, blood safety, hospital infection control, condom promotion, strengthening of clinical services for both STD and HIV/AIDS.

Responding to pandemics such as HIV and COVID-19 calls for a multi-sectoral approach that mobilizes leadership at the highest level. From Malaysia to Uruguay, to Italy and the Central African Republic, heads of state and government are personally engaged in the response to COVID-19 and are overseeing the implementation of measures to curb its spread. The involvement of heads of state is needed to bring all departments and institutions into the response, to activate crisis mechanisms and resources, and to convey the urgency of the situation.(5)

5. Partnership and global solidarity

The HIV epidemic is a formidable example of multilateralism and global cooperation. Thanks to community activism, international solidarity, and cooperation in the fields of science and medicine, 24.5 million people are on antiretroviral treatment today, mostly in low- and middle-income countries.

The United Nations Secretary-General and the Director General of WHO at the G20 Leaders' Extraordinary Summit on COVID-19 on 26 March 2020, stressed the urgent need to accelerate global partnership and solidarity in the response the pandemic. This solidarity must be anchored in a multilateral

framework to support and finance the global response and recovery with specific attention to countries most affected and those most fragile. These principles are further articulated in the Secretary General's report, Shared responsibility, global solidarity: Responding to the socio-economic impacts of COVID-19.

With a health system severely weakened by decades of political instability and conflict, one of the lowest ratios of qualified health workers per capita in the world, and more than half its population in need of humanitarian assistance, the Central African Republic is one of the most fragile countries facing COVID-19. In India both AIDS and COVID-19 stressed the importance and application of public health partnerships and solidarity in drug discovery and vaccines.

6. Time for courageous and multilateral action against COVID-19

The strategy and plan for National AIDS Control Programme Phase-IV (NACP-IV) has been developed through an elaborate multi-stakeholder consultative planning process for the period 2012-2017.

The main strategies of NACP-IV include intensifying and consolidating prevention services, increasing access and promoting comprehensive care, support and treatment, expanding IEC services, building capacities at national, State, district and facility levels and strengthening Strategic Information Management Systems.

NACP is an excellent example of community involvement and ownership in developing appropriate strategies and in reaching out to high risk and vulnerable populations. The programme has been greatly benefited by the critical role played by civil society and PLHA

networks in community mobilization, increasing access to services, addressing stigma and discrimination issues.

NACP-IV aims to accelerate the process of reversal and to further strengthen the epidemic response in India through a cautious and well defined integration process over the five years. Its main objectives are to reduce new infections and provide comprehensive care and support to all PLHIVs and treatment services for all those who require it.

Following the lines of NACP, the multilateralism of COVID – 19 helped India rolls out India's largest vaccination drive.

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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. Email - iphamahabbranch@rediffmail.com Phone (022 - 27437996/ 97)

Assessment of performance of Integrated Counselling and Testing Center (ICTC) and ART center in a rural hospital - A Case Study

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Abstract:

In India, HIV is mostly prevalent among the high risk groups, migrant populations and truck drivers from rural areas. Moreover due to stigmatization and ignorance in Rural India; testing rate, counselling rate, ART adherence rate, follow up is quite low. We have tried to study the functioning of an Integrated counselling and testing center and Antiretroviral therapy center of a Rural Hospital in Maharashtra situated around 500 kms from Mumbai. We have taken few categories mentioned in the National Guidelines under which protocols should be followed by ICTC and ART center like for service provider (infrastructure, human resources, financial management, ARV drugs, universal work precautions, linkages and referrals), monitoring and mentoring, retention into HIV care, HIV-TB collaborative activities, care of HIV exposed infants and children, support from NGO's to assess the performance.

Key-words: ICTC, ART CENTER, LAC, CoE, CCC, High Risk Groups, Transgenders.

Introduction:

India is a developing nation with approximately 2.1million people living with HIV and a national prevalence of HIV infection among adults is 0.2%.¹ Patient counselling and education are considered critical tools for ensuring adherence among PLHIV and maintaining their quality of health and life.²

One of the key objectives of NACP is to provide care, support and treatment to all People living with HIV(PLHIV). With this objective in mind various service delivery points like Center of Excellence, ART centers, ART Plus centers, LAC (Link ART centers), LAC plus and Community care center have been established and are being expanded in a need based manner.³ Along with it improved ART access reduces AIDS mortality and lowers HIV incidence by reducing the viral load at the individual/community level.⁴ An ICTC is a place where a person is counselled and tested for HIV, on his own free will or as advised by a medical provider.⁵

Case History:

We assessed the monitoring tools and reporting at ICTC and ARTC of SPARSH which is a rural hospital in Osmanabad district under PRIDE India foundation. Then we compared the services provided there with the NACO Operational guidelines. Secondary data was collected for 6months (April 2019 – October 2019) from the ARTC and ICTC. It was analyzed by Microsoft Excel sheet 2019. There are total two ART Centers in the district where this hospital is situated; one is at the Civil Hospital and one at SPARSH. There are four LACs, 13 ICTC , 1 CCC in the district. This hospital has a CCC, ICTC and an ARTC.

Chart 1: ICTC COUNSELLING

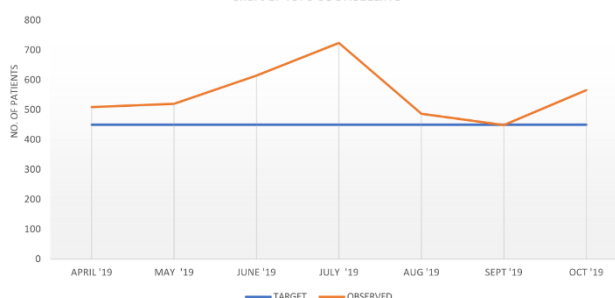
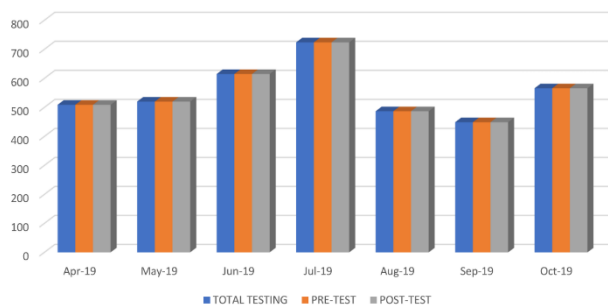
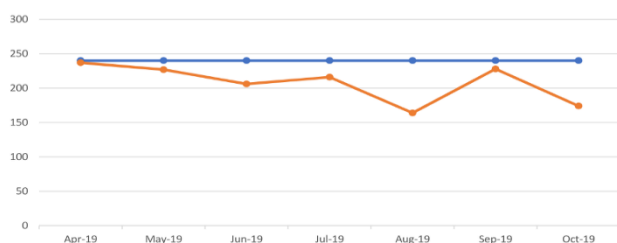


Chart 2 : ICTC COUNSELLING



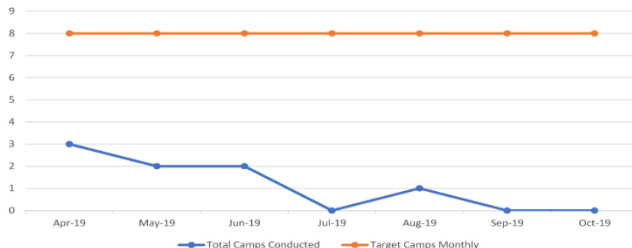
The total number of registrations at the ARTC of SPARSH in 2018 was 550; Total no. of patients currently ALIVE and on ART has increased to 880 by the end of October 2019. ICTC counselling done was constantly above the target number to be achieved for the last 6 months (Chart 1).

Chart 3: TESTING AMONG ANC WOMEN



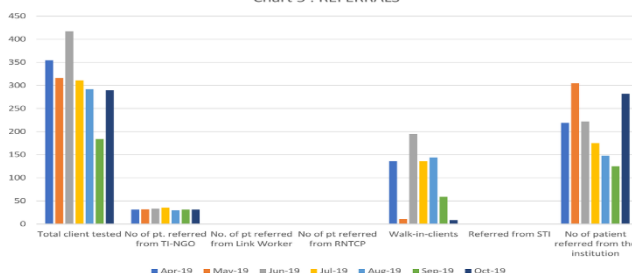
Testing of ANC women and outreach activities (Camps) done by the ICTC staff was always below target number (Chart 3).

Chart 4: CAMPS BY ICTC STAFF



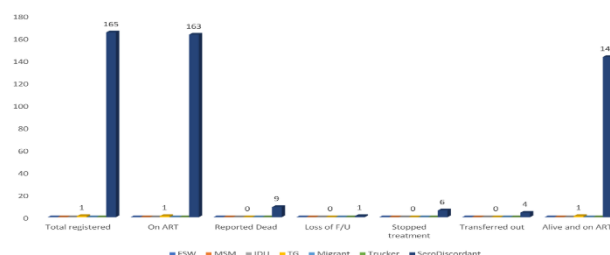
Maximum referrals for testing to ICTC were GC client followed from the institution and Walk in clients (Chart 5).

Chart 5 : REFERRALS



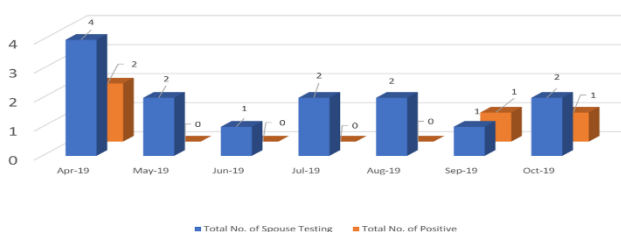
Among the total registered at ARTC maximum were female sex workers (Chart 6)

Chart 6



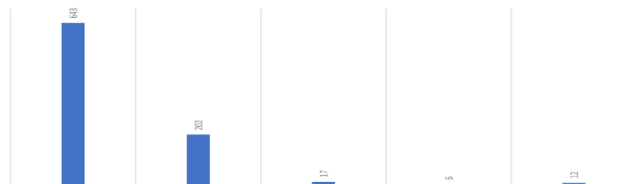
Maximum PLHIV were on TLE i.e. 643 followed by PLHIV on ZLN i.e. 202 (Chart 7)

Chart 7 : SPOUSE TESTING



Spouse testing was done for all PLHIVs of which 50% came positive in April 2019 and October 2019 and 100% in September 2019. (Chart 8)

Chart 8: NO OF PLHIV ALIVE AND ON-ART



Discussion:

The ICTC and ARTC abides by the Operational guidelines for ICTC under NACO such as;

- 1) ARTC should ideally be located near the Medicine OPD.
- 2) Signage depicting directions to the ARTC should be clearly placed in the institution at strategic locations, including ICTC.
- 3) All signages should have ART logo "We Care For You" in the board.

The ART center has a 1000 square feet area with an Examination room, Counselling room, Pharmacy, Laboratory, Office space and Waiting room for group counselling and IEC. The total manpower is 2 counsellors at ARTC, 1 Pharmacist, 1

Data Entry Operator, 1 Lab Technician , 1 Medical officer, 1 ccc Coordinator. There are no Staff Nurse designated specifically for the ward under ART center which is vacant since 2014. This post needs to be filled for smooth functioning of the center. HIV-TB Collaborative activities were carried out at this hospital. As it is a DMC itself, so DOTS is provided at ARTC only. Patients are referred for CBNAAT to District Civil Hospital. Monthly ART reports from center are forwarded by 4th of every month to CIMS by email. Regular review meetings of ART centres are conducted on quarterly basis. The ART team meets at least once in two months under chairpersonship of the Nodal Officer. This shows that reporting was done timely as per the standard guidelines.

The barriers to Adherence were found out to be:

- a) loss of daily wage for getting medications
- b) Addictions
- c) Temporary relief or feelgood
- d) drugs side effects
- e) Truck Drivers who continuously travel
- f) Wife or Widows who are thrown out of the house.

According to guidelines drugs should be given every month. But here, if CD4 count is above 350 and has an increasing trend for the last few years, then ARV drugs are given for 3 months at a time. This results in loss of follow up due to no monthly hospital visits. This might be a reason for number of defaulters of 1-2 per month.

Some of the NGOs associated with this Rural Hospital working for PLHIVs are PALLAVI, SHISHU AADHAR, APLE MANSA APLE SANSHKRUTI, PRAYAAS, PI ORGANISATION.

Vocational Training is provided to PLHIVs by the CCC like Tailoring, Beauty Parlor course, Computer classes, Machines like Flour Mills, Goat Rearing, Monthly groceries to widows and single

mothers. These helped them to live a meaningful and independent life.

Conclusion & Recommendation:

This study confirms that Counselling, Testing and ART delivery in a resource-constrained setting can be effective. Pre and Post-test Counselling is done for all the beneficiaries which gives a 100% counselling rate. Nevertheless, the number of Camps and outreach activities held by ICTC and ART should be increased to create awareness, dispel misconception and stigma, and increase in early referral for diagnosis and treatment. Camps and outreach activities will also promote drug adherence, follow up and psychological support to PLHIV on ART. The number of testing among ANC patients should be increased to prevent Parent to Child Transmission and decrease the disease burden.

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Acknowledgement:

We acknowledge Mr R B Joshi, In charge of SPARSH Rural hospital and staff of ART and ICTC center (SPARSH hospital) for providing support.

Model Health Research Unit in Tribal area of Palghar district, Maharashtra: Operationalisation and Achievements

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Model Rural Health Research Unit (MRHRU), Dahanu in Palghar district of Maharashtra was one of the first 15 MRHRUs to be established in the FY 2013-14 across the country by Department of Health Research, Government of India. MRHRU Dahanu is located in the premises of Sub-District Hospital Dahanu in Palghar district.



It is collaboration between ICMR-National Institute for Research in Reproductive Health (NIRRH) as a Research and Mentoring body; Directorate of Health services, Government of Maharashtra as facilitator and Grant Medical College as a linked Medical College.

The objectives of the scheme are:

- To create infrastructure at the periphery for transfer of technology to the rural level for improving the quality of health services to rural population.
- To ensure an interface between the new technology developers (Researchers in the Medical Institutions; State or Centre), health systems operators (Centre or state health services) and the

beneficiaries (communities in rural areas)

- Ensure the much-needed geographical spread of health research infrastructure in the rural area

Human Resources:

The core team of MRHRU Dahanu is comprised of Nodal Officer, Member Secretary, two scientists (one Medical and one Non-Medical), two technicians and four supporting staff.

Research activities were commenced with one project in the year 2014. Over the years the activities have expanded, MRHRU Dahanu has many projects based on local disease burden and provides diagnostic services. Activities were initially commenced from one room provided in the Sub District hospital and were finally moved to our new building in February 2020.

Microbiology Laboratory (Currently used for COVID-19 testing)



Laboratory and Diagnostic services:

Molecular biology, Microbiology and Biochemistry laboratories have been established at MRHRU.

- Sentinel Surveillance Hospital (SSH) for the diagnosis of Dengue

and Chikungunya Fever has been functional since October 2017 with the support of National Vector Borne Disease Control Program. This has resulted in increase in surveillance and control measures throughout the district.

- COVID-19 diagnostic facility: A RT-PCR based diagnostic facility has been established in May 2020 with the joint efforts of ICMR-NIRRH and district and state health officials. Till date approximately 48,500 samples were tested for the presence of SARS-CoV-2 virus.
- Diagnostic facility for leptospirosis

Molecular Biology Laboratory



Research Projects:

So far, seven research projects have been completed and six are ongoing. The areas of research include maternal and child health, nutrition, management of snakebite, measles rubella serosurvey, diarrheal disease in underfives, screening of newborn for sickle cell anaemia, birth defects, screening for NCD and common cancers, maternal and perinatal death review and mapping burden of diabetes.

Research Monitoring:

The research agenda was finalised after initial situational analysis which identified the local burden of diseases. A Research Advisory Committee (RAC) was constituted with experts identified in areas as per local burden of diseases. Till date, five RAC meetings have been held which have assessed and approved the

projects being undertaken at MRHRU Dahanu.

Biochemistry Laboratory



Achievements in last 5 years:

1. Establishment of Sentinel Surveillance Hospital for Dengue and Chikungunya
2. Establishment of COVID-19 diagnostic facility
3. Diagnostic facility for leptospirosis
4. Capacity building of medical officers of Palghar district: CMEs on various topics such as haemoglobinopathies, Dengue and Chikungunya and cancers and NCDs
5. Training workshop on management of snakebite for Medical officers have improved management of snakebite cases and helped in reducing deaths
6. Capacity building of health care workers in Palghar district on identification of birth defects
7. Initiation of screening of newborn for sickle cell anaemia and common cancers in the district
8. IEC material
 - a. Training manual in Marathi language was prepared for community awareness highlighting the different species of poisonous snakes, preventive measures and first aid for snakebite envenomation. A training manual on prevention, diagnosis and first aid for snakebite envenomation has been developed for empowerment of peripheral health workers

- b. Pamphlet for awareness of sickle cell disease in local language has been developed, health card for follow up of this children have been developed
- c. Training manual and training video on visible birth defects developed

Dahanu. Two PhD students in Community Medicine registered at ICMR-NIRRH under Maharashtra University of Health Sciences (MUHS) are developing their synopsis in the area of adolescent anaemia and contraception, which will be conducted under MRHRU Dahanu in Palghar district.

Way Forward

The scheme has received extension till March 2026. Research projects in areas of local health problems will be conducted. We will also be setting up genetic counselling clinic at MRHRU

Acknowledgements

We acknowledge the support of Department of Health research, Indian Council of Medical Research, Director ICMR- NIRRH, Dean – Government Grant Medical College, State Health Officials, District Health Officials, Core MRHRU and Project Staff.

PADVYUTTAR SANSHODHAN PRAKALP ANUDAN – 2021

Indian Public Health Association, Maharashtra Branch has started a new scheme this year, '**Padvyuttar Sanshodhan Prakalp Anudan**', offering financial support to deserving research proposals from post-graduate students of Public Health / Community Medicine from Medical Colleges located in Maharashtra State.

Eligibility

1. Applicant should be a post graduate student of Community Medicine OR Masters in Public Health OR Community Nursing OR Community Dentistry
2. Either the applicant or Guide of the applicant should be member of Indian Public Health Association.
3. Research study proposed should be community based original research and should be distinctly different from student's dissertation topic.

Guidelines for submission of research proposal

- Topic of research project should contribute to Public Health knowledge base.
- Student should be the Principal Investigator and Guide should be Co-Investigator.
- The project proposal should be submitted to IPHA Maharashtra Branch office by email only, to iphamahabbranch@rediffmail.com on or before 31st January 2022. The proposal will be scrutinized by panel of experts and acceptance of proposal will be communicated by end of February 2022 to concerned student.
- The projects from only Colleges of Maharashtra will be assessed and FIVE best projects (3 From Community Medicine & 2 From MPH / Community Nursing/ Community Dentistry) will be awarded funding of Rs. 15,000/- each. The funds will be released in 2 instalments i.e., Rs. 10,000/- once the project is approved and Rs. 5000/- immediately after approval of project report submitted within a period of 18 months.
- Student should prepare & complete project under the guidance of Community Medicine / Community Nursing/ Community Dentistry faculty.
- Final submission of Project Report should be before 31st August 2023.

Format of Application

1. Title page - Name & details of student and guide bearing signatures
2. Research Proposal
 - a) Title , b) Introduction, c) Aim & Objectives, d) Material and Methods , e) Plan of Data Analysis, f) Study Implications, g) Study Limitations, h) References, i) Annexures including Budget with Justification
3. Enclose Institution Ethics Committee approval letter
4. Enclose Covering letter from Head of Department mentioning distinct difference in dissertation topic and topic of study under consideration and validating that the study will be student's original research work.

All documents to be submitted in single e-mail as typed or good quality scanned documents.

Do we need to vaccinate every child against COVID-19?

Dr. Anuradha Kunal Shah¹

¹ Assistant Professor, Community Medicine, Seth GSMC and KEMH

Background:

Vaccination in children is not a new concept and starts from birth. The authorization of Covid vaccines in children older than 12 years has generated quite a stir especially when many countries are struggling to get access to these vaccines for adults and other priority groups. Covid vaccination in children is being helmed as an important strategy for reopening schools or keeping them from shutting down. Does this mean all children should receive the Covid vaccine? The answer to this question is highly debatable with countries and scientists divided over views.

The decision for deploying the Covid vaccine to all children should be based on scientific evidence rather than analogies and assumptions. Evidence regarding the burden of Covid-19 in children, risk versus benefit of vaccination, role of vaccination in reducing the risk of transmission, and its effectiveness in protecting against the disease should be considered.

What does the evidence say?

Current evidence shows that children are at low risk for developing severe Covid-19 infection and mortality.¹⁻³ The infections are mostly mild or asymptomatic. Rarely, children may develop pediatric inflammatory multisystem syndrome (PIMS-TS) two to four weeks after Covid-19 infection which shows features similar to Kawasaki disease and toxic shock syndrome.² Studies have also shown that fewer than two in a million children died of Covid-19.¹ Considering the low risk of severe infection, and mortality, benefit

from vaccination may seem little. However, the aim of Covid vaccination in children is different from adults. One should look at benefits in terms of reduction in transmission, rather than reduced severity of infection and deaths. Role of children in person-to-person transmission of Covid-19 is unclear. Covid-19 transmission by younger children is less as compared to older children and adults. With the emergence of newer variants, concerns regarding transmission of Covid -19 by children are increasing but there is no scientific evidence to support this thus, making children a weak case for vaccine priority.

Covid vaccines that have undergone trials in children over the age of 12 years and use are mRNA vaccines by Moderna and Pfizer-BioNTech, Sinovac, and Sinopharm. Results of the Zydus Cadila vaccine and the Covaxin are expected soon. Trials are being carried out in children below 12 years of age too. Countries like United States, Canada, Israel, China, Chile, etc. have gone ahead and started vaccination in children over 12 years of age. Many more countries are expected to follow suit. However, others like the United Kingdom have delayed it for children below 16 years. There is limited safety data of Covid vaccines in children. Several reports have emerged from the United States and Israel which show post-vaccination myocarditis and pericarditis with Pfizer-BioNTech vaccine in adolescents and young adults.^{4,5} Causal link is yet to be established. The risk of these conditions is described as low i.e., 67 cases per million in boys aged 12-17 years and nine cases in girls of the same age group. In countries, where Covid vaccination has been introduced

for children, surveillance for rare conditions following vaccination like antibody-dependent enhancement and PIMS-TS is needed.

To achieve effective herd immunity, it is necessary to vaccinate all children. Research has shown that even a single dose of vaccination reduces the chance of infection by 50% and those who get the infection are also 50% less likely to transmit. This also results in reduced transmission to the older vulnerable population.

However, the likelihood of achieving herd immunity through vaccination has waned due to global shortage and the slow pace of vaccination in many countries. Vaccine hesitancy has also contributed to the slow pace of vaccination among the adult population. A general observation is that a serious side effect (even if rare) occurring in children may lead to greater vaccine hesitancy among people. Routine immunization for children under five years of age is already facing a setback due to the pandemic and may further get affected because of post-Covid-19 vaccination adverse effects.

Covid vaccination in children is being considered as a prerequisite for reopening schools and keeping them from shutting down. However, evidence from many countries like United Kingdom, Australia, Michigan, Washington state, and Italy suggests that transmission of Covid-19 in schools is lower or at par with community transmission.⁶⁻⁸ Therefore, it is not mandatory to vaccinate all children before reopening schools.

Children do not transmit Covid-19 with the same frequency as they do for the influenza virus. But, co-infection of Covid-19 along with routine viruses during their peak season can cause a greater burden of disease among children. The virus is likely to evolve with

time and the possibility of children getting affected in future waves can not be neglected. These assumptions should be backed up by adequate research before deciding the priority for vaccination in children.

Authorization of Covid vaccines for children does not warrant the need to vaccinate them at the earliest. The roadmap for Covid vaccination in children should be set considering all scientific pieces of evidence regarding the safety, effectiveness, and vaccine availability. Vaccinating children over high-risk adults in other countries may seem like a privilege for the wealthier countries adding to the existing melancholy due to inequitable vaccine distribution. Against the backdrop of shortage of supplies of vaccines, it is morally wrong and unethical to devoid vulnerable adults in other countries of a vaccine.

At this stage of vaccine deployment, targeted vaccination in children could prove beneficial and ethical. Cases across the world have suggested severe or fatal Covid infection among those children with underlying medical conditions.^{9,10} Malnutrition, concurrent tuberculosis, or HIV infection may also affect the outcome. Priority groups for vaccination should include children and adolescents with neuro-disabilities, immune-compromised status including transplant recipients, hemoglobinopathies, and adolescents working in the healthcare sector at risk of occupational exposure to Covid-19.

However, data regarding safety, immunogenicity, and effectiveness in vulnerable groups are needed before recommending vaccination to them. Children who live with vulnerable adults may also be considered. As more evidence is generated with time and with the increase in vaccine availability, other high-risk children can be vaccinated.

(.....Continued on page 20)

Health Technology Assessment in India

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Countries from across the world set the ambitious target of Universal Health Coverage (UHC) under Sustainable Development Goals (SDGs) to ensure that individuals and communities receive a full spectrum of health services without suffering any financial hardship. To progress and achieve UHC, countries need strong health systems. A robust financing mechanism is key to both effective service coverage and financial protection of the population accessing healthcare services. There is however only a limited pool of resources available to meet growing needs of a given population. Prioritization of resource allocation based on factors like socio-demographics, disease burden, financial implications, and associated trade-offs and equity considerations can maximize societal health impact.

Health Technology Assessment (HTA) is one such scientific approach that addresses complex considerations associated with decisions made under uncertainty to ensure that associated opportunity cost of a given decision is minimal. Policy makers cannot afford wrong decisions and hence employing a scientific and evidence based methodology can help improve efficiency with decisions. HTA is widely used across many countries. Examples of application of HTA include reimbursement of a particular treatment, decision on provisioning of a particular drug to a population sub-group, assessing value of introducing a public health program and so on. The World Health Organization (WHO) defined Health Technology Assessment as the systematic evaluation of properties, effects and/or impacts of a health technology that include knowledge and skills in the form of medicines,

medical devices, vaccines, procedures and systems developed to solve a health problem and improve quality of life.(1)

HTA is a multidisciplinary process that evaluates social, economic, organizational and ethical issues of a health intervention or health technology. A recent update by global leading HTA organizations including the WHO, now defines HTA as a multi-disciplinary process that determines value of a health technology at different points in its lifecycle to inform decision-making with the aim of promoting equitable, efficient and a high-quality health system.(2)

HTA as a formal tool is being used in many countries from Europe, Australia, America and has also been implemented to varying extent by developing countries like Thailand, Taiwan that have successfully steered towards UHC.(3) Asian countries like India, China and Philippines are on the path to adopt and institutionalize HTA to help in evidence informed decision making across health sector.(4,5)

India's National Health policy of 2017 set the goal of attainment of highest possible level of health and wellbeing for all by providing universal access to quality health care services without anyone facing any financial hardship.(6) This is foreseen to be attained through increased access, improved quality and by lowering cost of healthcare delivery.

The NHP committed to development of institutional framework and capacity for HTA adoption in India. The government of India set up the institutional arrangement called Health

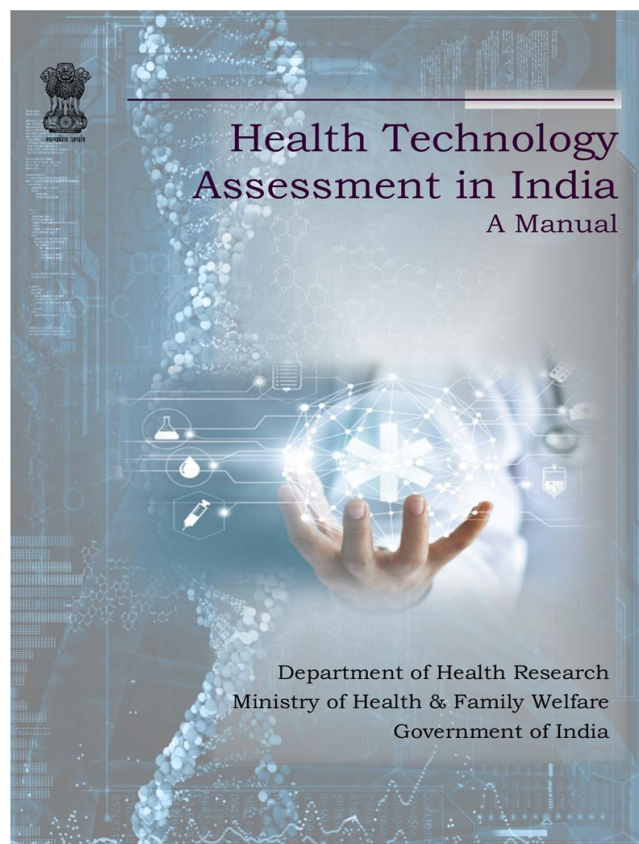
Technology Assessment in India (HTAI) under Department of Health Research (DHR) to facilitate process of transparent and evidence informed decisions by generating evidence related to clinical effectiveness, cost-effectiveness and safety of medicines, devices and health programs in India using HTA approach wherever needed.(7) The primary objective of HTAI is to maximize health, reduce out-of-pocket expenditure and minimize inequality. The organizational structure of HTA activities in India consists of the HTAI Board, the Technical Appraisal Committee (TAC), Regional Resource Hubs/Technical Partners and the HTAI Secretariat stationed at DHR, MOHFW, India. By 2020-21, HTAI had established 16 regional resource hubs and 10 technical partners across the country to conduct HTA studies and act as a bridge between the central and state government departments.(8)



The key phases of process of undertaking HTA in India primarily includes need for a policy question to be answered, identified by user departments generally from health ministries of state, center or local health system. These identified topics proposed by user departments are then selected and prioritized based on a pre-defined criteria.(9) Once the topic is selected, a potential resource hub/technical partner is identified based on area of expertise,

capacity and experience to allot the topic for HTA analysis.

A standard set of methods has been developed as a guidance for researchers on what methods to use while conducting



an economic evaluation in the Indian setting referred to as the Indian Reference case.

Economic evaluation is the main component of HTA which uses a Decision Analytical Model. The model is built using epidemiological parameters that are contextual, effectiveness parameters of the technology under consideration using a systematic review, conducting a primary costing study or using the national cost database and health related quality of life parameters for the health states considered in the model using the Indian tariffs. Economic evaluations analysed from equity and social perspectives will provide a holistic dimension of the health technology assessment.



Outcomes of the study when ready are again presented before the technical appraisal committee for appraisal and then forwarded to the advisory board for final recommendations. The proposal and results are discussed with stakeholders before handing over the final recommendations to user departments for implementation.



HTAIn has developed reference case and process manuals to ensure quality and standardization of HTA research in India. By 2020-21, HTAIn had received 79 topics from user departments, 54 of which were considered eligible to be taken up for HTA analysis. Of these, 20 studies have been completed and remaining 34 were reported as ongoing.



Sensitizing Maharashtra State government officials about HTA, June 2019

Indian Council of Medical Research - National Institute for Research in Reproductive Health, Mumbai is one of the regional resource hubs on the Indian western coast set up by HTAIn, DHR in year 2017 to deliver the HTA mandate through collaboration with regional and state user departments. The other Resource hub is based in ICMR National Institute of Virology Pune. The regional resource hub undertakes HTA studies allocated by HTAIn secretariat through user departments, liaises with regional state governments, academicians, researchers and stakeholders to identify potential policy questions, disseminate findings of relevant studies undertaken by HTAIn and build human resource capacity for HTA research in India.

The HTA Resource Hub at NIRRH has undertaken sensitization workshops for academicians, program managers and policy makers at local and regional levels to improve dissemination of HTA as a discipline.

A MOU has been signed with Government of Maharashtra and a nodal officer has been identified to coordinate HTA activities with the HTA resource hubs in the state.

The NIRRH Resource Hub has completed three HTA projects, is engaged in an ongoing multi-centric study and has been allocated two forthcoming projects for evaluation. The institute's mandate is to address reproductive health concerns at regional, national and global scale. The NIRRH HTA regional hub largely undertakes research under this mandate however does also answer relevant policy questions raised by user departments using health economics approach.

The HTA Resource Hub at ICMR-NIRRH, Mumbai conducted a cost-effectiveness evaluation of introducing Etonorgestrel contraceptive implant in India's family planning program. The HTA analyses found that adding Etonorgestrel implant in the Indian public health system would be cost-effective with a feasible budgetary allocation for this introduction.(10)

Publications from this study:

1. Cost Effectiveness of Introducing Etonorgestrel Contraceptive Implant into India's Current Family Welfare Programme. Available here: <https://link.springer.com/article/10.1007%2Fs40258-020-00605-5>
2. A systematic review on clinical effectiveness, side-effect profile and meta-analysis on continuation rate of etonogestrel contraceptive implant. Available here: <https://reproductive-health-journal.biomedcentral.com/articles/10.1186/s12978-020-01054-y>
3. Predictors of Discontinuation of Modern Spacing Contraceptives in India. Available here: <https://journals.sagepub.com/doi/10.1177/1010539520983149>

Another study assessed the cost-effectiveness of uterine balloon tamponade devices for managing atonic post-partum haemorrhage in Indian public health. Among multiple available uterine balloon tamponade devices for

PPH management, it was found that improvised condom-UBT offered better value for money as compared to specially designed Bakri balloon device in Indian context with another alternative named Every Second Matters UBT being considered for introduction not having enough clinical evidence to recommend based alone on the favourable cost-effectiveness result.(11)

Publications from this study:

1. Cost of managing atonic postpartum haemorrhage with uterine balloon tamponade devices in public health settings of Maharashtra, India: an economic microcosting study. Available here: <https://bmjopen.bmj.com/content/11/3/e042389>
2. Cost-effectiveness of uterine balloon tamponade devices in managing atonic post-partum hemorrhage at public health facilities in India. Available here: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0256271>

A topic of interest from the Government of Maharashtra was allocated to the resource hub at NIRRH to assess cost-effectiveness of using intravenous Tranexamic acid drug in all primary post-partum haemorrhage cases accessing Indian public health facilities. The study concluded that early addition of Tranexamic acid to standard care management for PPH was found to be cost-effective in India with an estimated additional budget allocation requirement of 2.3% to that currently being provisioned for PPH management in India to implement its introduction.

The centre is also currently evaluating cost-effectiveness of investing in Prong 2 interventions of PPTCT program to prevent unintended pregnancies by linking HIV and family planning programs to compared to Prong 3 alone ie providing prophylactic ART to pregnant HIV positive women.

These are just a few examples of studies undertaken at one of the HTA

resource hubs. Such studies across all resource hubs through the support of HTAIn DHR aims to institutionalize a robust HTA framework to inform government investments in health to deliver UHC for Indian people.

This is an upcoming field of public health in India that could enthuse public health professionals to get trained and conduct economic evaluations on newer technologies that have potential for scale up through national health programs and benefit communities at large. Developing technical capacity and cultivating a culture of undertaking such assessments will help India take a step to realizing its health goals.

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World AIDS Day 2021

End inequalities. End AIDS. END Pandemics



37,700,000

estimated number of people living with HIV in 2020



680,000

people died from HIV-related causes in 2020



1,500,000

people were newly infected in 2020



73

% of people living with HIV received lifelong antiretroviral therapy (ART) in 2020

- Each year, on 1 December, the world commemorates World AIDS Day.
- People around the world unite to show support for people living with HIV and to remember those who have died from AIDS-related illnesses.
- Theme this year is **End inequalities. End AIDS. End pandemics.**

World AIDS Day Themes



2020	Global solidarity, shared responsibility
2019	Communities make the difference
2018	Know your status
2017	My health, my right
2016	Hands up for HIV prevention
2015	On the Fast-Track to end AIDS
2014	Close the gap
2013	Zero discrimination
2012	Together we will end AIDS
2011	Getting to zero

2010	Universal access and human rights
2009	Universal access and human rights
2008	Stop AIDS. Keep the promise—lead, empower, deliver
2007	Stop AIDS. Keep the promise—leadership
2006	Stop AIDS. Keep the promise—accountability
2005	Stop AIDS. Keep the promise
2004	Women, girls, HIV and AIDS
2003	Stigma and discrimination
2002	Stigma and discrimination
2001	I care, do you?
2000	AIDS: men make a difference
1999	Listen, learn, live! World AIDS campaign with children and young people
1998	Force for change—world AIDS campaign with young people
1997	Children living in a world of AIDS
1996	One world, one hope
1995	Shared rights, shared responsibilities
1994	AIDS and the family
1993	Time to act
1992	AIDS—a community commitment
1991	Sharing the challenge
1990	Women and AIDS
1989	Our lives, our world—let's take care of each other
1988	A world united against AIDS



(Source: WHO / UN Websites)

.....Do we need to vaccinate every child against COVID-19?

Conclusion:

On one hand, several countries have reported seroprevalence of Covid antibodies in children despite lack of vaccination, and on the other hand, in countries like Taiwan and New Zealand, with effective Covid-19 containment, there is hardly any immunity from natural infection. The decision for vaccinating children cannot be a universal one. Some countries may benefit more than others.

Ultimately, the decision to prioritize children over adults from other countries will be political. Even then, the advocacy for Covid vaccination should focus on the most vulnerable adult population and targeted vaccination in children and adolescents can be considered.

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