



IPHA MAHARASHTRA BRANCH

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Is Measles making a comeback?

There is increase in number of measles cases being reported from certain districts of Bihar, Gujarat, Haryana, Jharkhand, and Maharashtra, lately. Decline in vaccine coverage, weakened measles surveillance, and continued interruptions and delays in immunization activities due to COVID-19, has caused a resurgence in measles globally, and not just in India. In all such geographies, the affected children missed out on their routine immunization for varied reasons during the COVID-19 pandemic.

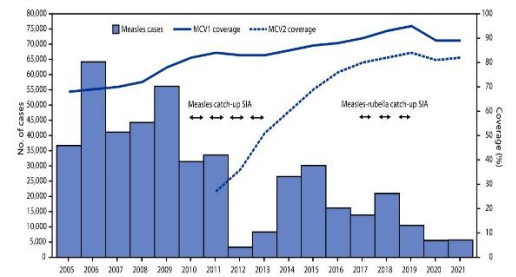
The interventions that we put in place for the COVID-19 pandemic, such as mask wearing, teleworking and travel restrictions, also slowed the transmission of other respiratory diseases, including measles. And as those restrictions are being eased, we are seeing an increase in the number of measles cases being reported, particularly in Africa, the Middle East and Southeast Asia.

The best protection against measles is being vaccinated. Measles vaccination has resulted in a 73% drop in measles deaths between 2000 and 2018 worldwide. In 2019, India, along with other countries in the WHO South-East Asia Region, adopted the goal of measles & rubella elimination by 2023. Surveillance data from India shows, 20,925 reported cases of measles in 2018 (15.4/million) dropped to 5,697 (4/million) in 2021.

India has one of the world's largest immunization programs, targeting a birth cohort of 27 million children annually. In 2017, India introduced RCV, and measles- and rubella-containing vaccine (MRCV) replaced MCV1 and MCV2 in the routine immunization schedule. During 2017–19, India conducted measles - rubella SIAs in a phased manner, vaccinating approximately 324 million children with MRCV.

Estimated coverage with the first MRCV dose (MRCV1) peaked at 95% in 2019 before the COVID-19 pandemic; coverage declined during the pandemic to 89% in 2021. Similarly, the estimated MCV2 coverage declined from 84% in 2019 to 82% in 21.

Number of reported measles cases, estimated percentage of children who received their first and second doses of measles-containing vaccine, and supplementary immunization activities, by year – India, 2005–2021



[Source: CDC MMWR Vol 71 No. 50 – 16 Dec 2022]

In 2005, India began using the WHO-supported AFP surveillance platform for laboratory-supported measles and rubella outbreak-based surveillance in phased manner. During 2017–19, India transitioned from outbreak-based to case-based measles and rubella surveillance. Furthermore, in 2021, India transitioned to case-based acute fever and rash surveillance in all states. To support this scale-up, the network of WHO-accredited laboratories expanded from 3 in 2005 to 13 in 2017 and 27 by 2021.

With robust surveillance data available, the decision making becomes easier. MoHFW has advised administration of one additional dose of Measles and Rubella Containing Vaccine (MRCV) to all children of 9 months to 5 years in vulnerable areas. This dose would be in addition to the primary vaccination schedule of first dose at 9-12 months and second dose at 16-24 months.

MoHFW has also advised one dose of MRCV to be administered to all children aged 6 months and up to less than 9 months in areas where the measles cases in the age group of less than 9 months are above 10 per cent of the total measles cases.

It is not impossible to combat this Measles resurgence by the dedicated health workforce through coordinated and evidence-based intensified efforts in post-covid 'new normal'.

-Dr Prasad Waingankar

Source / Reference

1. WHO Website
2. UNICEF Website
3. Murugan R, VanderEnde K, Dhawan V, et al. Progress Toward Measles and Rubella Elimination – India, 2005–2021. MMWR Morb Mortal Wkly Rep 2022;71:1569–1575.

India's Health Care System is not so bad...., and can do much better.....!!

EDITORIAL

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The title, I am sure, will surprise many readers who have nursed the understanding of Indian health system is on the lowest rung in the world. I am trying to make a case here that the current healthcare system is not as bad as many in the world, and with proper steering and inputs, it can be developed into a good health system of tomorrow. The popular belief is that UK, USA, Canada etc. are the best health systems with major GDP investments (above 10%) and we need to catch up with them. The answer is yes and no. I had the occasion to look at major healthcare systems of the world and interview stakeholders since 1997, including China, the UK, the USA, Germany, Thailand, and Singapore. I have followed the debates about the Indian health care system from the statist left and liberal viewpoints, the High-level commission on health appointed by the Planning commission (2010), and then PM Jan Swasthya Yojana and the COVID

experience. COVID has shown both the strengths and weaknesses of our health system, especially for the pandemic times. Of course, my understanding is subjective and not many would agree but I am open to debate and listening.

Major types of healthcare systems

So first we will look at what are the major thematic models of health systems in the world and their strengths and weaknesses.

As a basic test for a good, health care system I will apply a four-pronged template-access, cost and finance, quality of care, and freedom of choice on part of clients and consumers. At the outset, I am clarifying that by health care system, I mean a meaningful and functioning combination of supply and demand systems, infrastructure, HR, finances and costs, consumables, governance, and component healing systems.

Major prototype of the health care system	Country Model	Cost in GDP%\$	Physical Access	Quality of Care issues	Client satisfaction
1. Tax based, statist	UK, Canada,	10-12%	Difficult with gatekeepers	Delays and queues, clinical outcomes fair	Red-tapism issues
2. Market and pvt insurance plus state investment based	USA	19%	Difficult, ridden with litigation mindset, high-cost insurance, and co-payments	Delays, protocol-driven which is in turn driven by insurance cartels	Awfully unhappy
3. Social Insurance-based	Germany, Singapore, France	12% and 6%	Good and easy access	Good	Satisfied
4. State-owned, privately purchased through insurance	PRC China	5%	Good access, now tightening with insurance purchase		Difficult to gauge, unreported.
5. Mixed model	India, Thailand	4%* to 6%	Access good to the variable, depending upon region and category of health care-private or public	Highly variable across sectors and regions	Variable, ranging from laurels to violence.
Underdeveloped	Afghanistan and other failed states		Difficult	Survival is the sole mantra	

\$ All OECD countries have about 6% to 19% of GDP, with a median (ballpark) 12%.

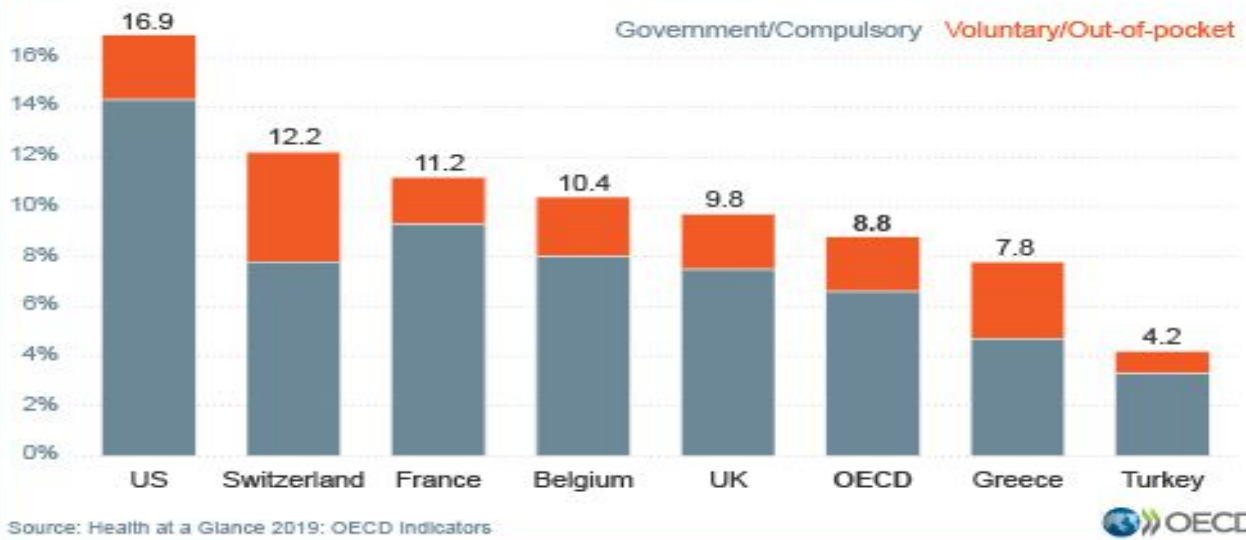
*Combined private and public expenditure

We can see that social insurance-driven healthcare systems like Germany, France, and Singapore have an optimal combination and cost about 6 to 12% of GDP



How much do countries spend on health?

Health expenditure as a % share of GDP for selected OECD countries, 2018



The NHP 2017 template

The welfare state and costs of care

Healthcare expansion needs to be seen in the framework of a welfare state. Essentially the map of welfare states is mainly OECD group with advanced economies, high tax rates and high per capita incomes. {Health at a Glance 2019: OECD Indicators says that the United States spent the most on health care in 2018, equivalent to 16.9% of GDP, above Switzerland, the next highest spending country, at 12.2%. Germany, France, Sweden and Japan all spent close to 11% of GDP, while a few countries spent less than 6% of their GDP on health care, including Mexico, Latvia, Luxembourg, and Turkey at 4.2%.} The Bhore model was based on the UK Beveridge model, and could never get the finances of 6-8% of GDP so far. The spending limits for us continue today, with major defense spending required for an ever-present possibility of a two-front war. It is notable that China, a giant economic power has not been able to raise its Health spending to 6% from its current 5% for a long time

Health Care as a Fundamental Right

Although Health is a fundamental right as implied by the right to life in the Indian constitution, Health Care is not a fundamental right, which was a major argument from political groups. The NDA govt declined to accept this in the NHP 2017 and left it to states to make a move first as the states are implementing health services and have to take the economic burden (and litigation). I support the non-

inclusion of health care in fundamental rights to services is a complex and costly issue. It is part of directive principles and states can improve their systems to cope with the demands. The push for Universal Health Care (UHC) is how the state will ensure the supply of health care without conferring the right to health care. So, it is better to make a robust UHI supply, rather than distort the demand side through the rights model. This is a practical approach.

The centrality of the tiered public health care system model

It was the Bhore model to suggest the three-tiered model first for India, which is fundamentally good for the optimization of resources for a vast country with 70-80% rural spread out (or the base of the pyramid we can say). India is building on this through the wellness centers project and upgradation of hospitals, especially district hospitals to medical colleges.

Pluralistic healthcare system

One of India's best aspects is its rich tradition of AYUSH. However, we have treated the AYUSH badly, not giving it the due space in the mainframe health system. The Medical associations, under a commercial framework, are trying to keep out AYUSH, except the use of AYUSH doctors/graduates as cheap hands in hospitals and ICUs. On the other hand, Ayurveda, Homeopathy graduates are using modern medicine in distorted ways. So, the stick is burning at both ends. We want good political and professional leadership to integrate/intertwine the systems for a truly vibrant health system.

Inter-pathy research and cohabitation under the same roof are the possible routes for this. The pluralistic system also offers a choice and freedom for people to decide what treatment option they want and not get bogged down at dead-ends. There are several examples showing that when modern medicine didn't work, there were some success stories and hence there is hope always. The reductionist approach of modern medicine versus the holistic ways of AYUSH are evident in several areas of health and disease.

Consumables-Pharmaceuticals

India has one of the cheapest pharma products available in the world thanks to its production infrastructure and collaborations. With generic drug options and essential medicines available at public health facilities and the PMJAY support, it is a major asset of the Indian health system. The private health sector and prescription purchases are still very costly, and it is mainly due to information asymmetry between suppliers and consumers. Hopefully, that will change thanks to many apps like TATA 1mg.

The HR issues

The major problem of the Indian health system is its increasing emphasis on a doctor-centric model, to allopathic doctors. This is a political problem and Medical associations are resisting the inclusion of short-course doctors, AYUSH doctors etc. The effort is to meet the doctor: population ratio of 1:1000 purely with modern medicine graduates, hence greater expansion of medical education. This move, beyond a point, will make the Indian health system completely top-heavy, doctor centric and allopathic, with its costs and tech options. We need good primary care personnel from any pathy with some integrated approach. Secondly, the training systems for paramedics are still very underdeveloped. The skill development program should expand and improve this sector. Good and skilled paramedics are the backbone of any good health system at all levels primary to tertiary.

Social Insurance as a purchasing tool

I now argue for an important change in our financing-health care approach. My friends have endlessly argued for tax-based care with GDP share upwards of 3%. I am arguing that Indian spending is already at 4%, accounting for the private expenditure.

The point is, why not use social insurance tools to put the private expenditure (called OOPE) into a semi-

public pool for a more economical and productive outcome? This is how many Social Insurance systems (like Germany and Singapore) have done.

Simply put, supposing my family is spending Rs 50000/- per Annum of privately purchased medical insurance from a public (like New India Assurance Co. ltd.) or private companies (say Star health insurance Co. ltd.), I should have an option of getting cover from the PMJAY at some premium, for instance Rs 15000/- in place of the Rs 5000/- premium per family for BPL families paid by the Govt. This is one way to reduce the cost of insurance, expand national insurance cover to non-BPL families without state actually investing.

Of course, the need to expand and equip public facilities for better care, quality, access, and outcomes is unquestioned, and I am sure this will happen as years go. On the contrary, more investment from tax funds has its problems of red-tapism like the UK case. This is how countries like Singapore have improved their systems even at 6% GDP cost.

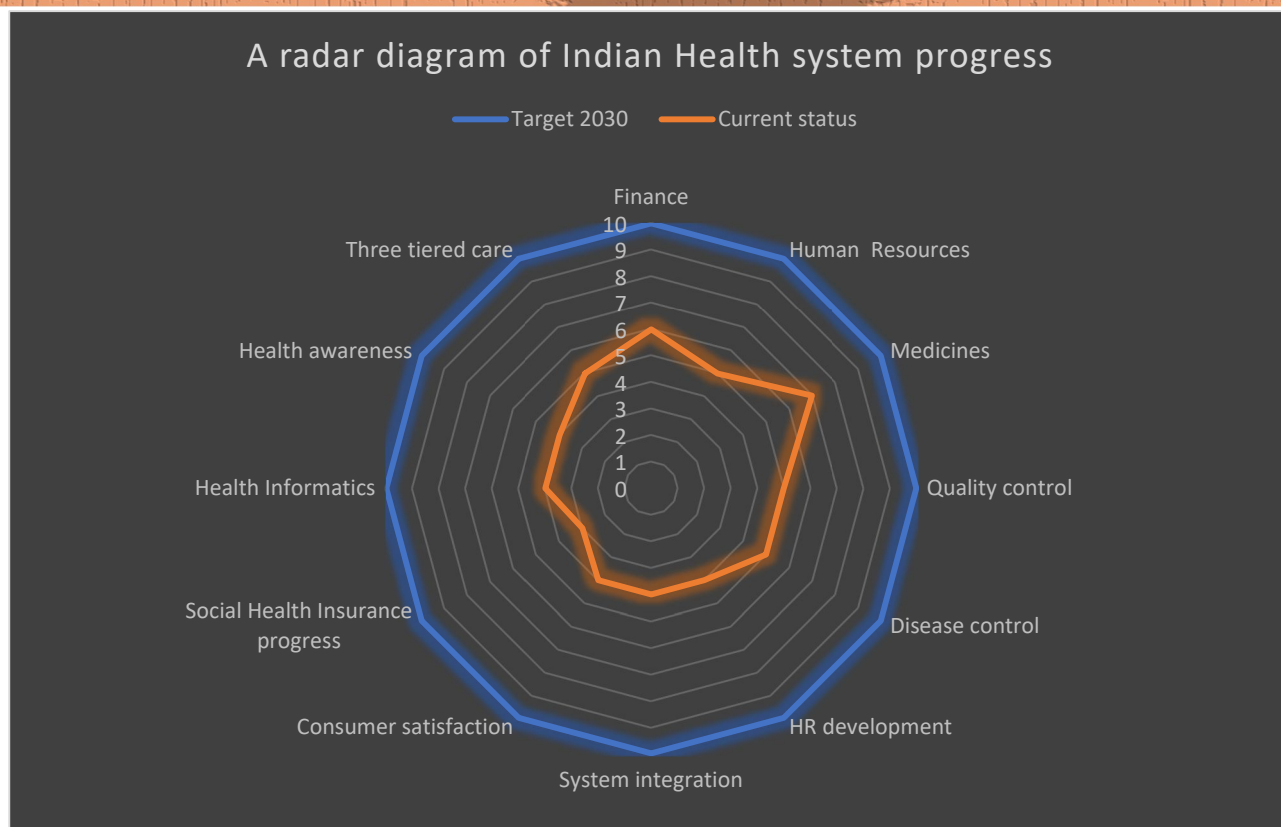
The serious challenges before us

India has a very diverse health system which is difficult to regulate for cost and quality. While diversity has its strengths, the regulation aspect is difficult. There should have been a single umbrella regulation system for all pathies, paramedics, with some optimizing mechanisms. For instance, our NMC is generating medical colleges with a single-minded pursuit of improving the doctor: population ratio of 1:1000, completely ignoring that primary care doctors (the Indian Medical Graduate) need to be the base of the pyramid. All IMGs walk into PG programs. So, the base of the pyramid is already eroded. And if we are so against the inclusion of AYUSH doctors in the base of the pyramid, primary care is in serious jeopardy. The second problem is the rising costs due to corporate hospitals or corporatization. Our public policy should be to improve public and charity sector and discourage the growth of the corporate hospital. The charitable trusts running 'private' medical colleges needs to be diligently used in this direction.

The PMJAY and Wellness centres

At the launch of PMJAY, there was widespread criticism that this is only looking at the supply side by purchasing care and not expanding public facilities. The PMJAY has actually also supported public sector to gain resources. Further, most of all the private medical colleges,

A radar diagram of Indian Health system progress



being trust hospitals, are in a semi-public domain due to the Govt investment by way of PMJAY (and student fee subsidies) and can be leveraged for public services in priority areas (like MCH, NPCDCS for instance) and national health initiatives, without infrastructure costs. How intelligently and effectively this leverage can be used partly rests with the state governments.

My radar of the Indian Health System progress and shortfalls

As a tool to map and track where we are on various important fronts in the Indian Health System, my visual impression is given in the radar graphic below. This shows, according to my assessment, which sectors need to develop further for a 2030 best case scenario.

Conclusion

The Indian health system is ready for a good leap and meets the challenges of improving access, and quality of care at affordable costs. It has the virtues of flexibility, a public-private-charity institution mix, a pluralistic approach, a developing three-tiered system, a huge base of domestically trained human resources, comparatively cheaper generic medicines, a potentially expandable PMJAY, and a possibility of conversion into a flexible social health insurance system. We do have to deal with problems like doctor -

centric HR policies and increasing corporate presence (with subtle ways of taxation and subsidies for charitable organizations).

We can improve the primary care and wellness network, expand paramedic training facilities, and better health-medical informatics. We are at a vantage point and need to avoid going towards fully tax-based models, which is very difficult given the large presence and influence of the non-public sector. A contributory Social Health Insurance system is the way forward.

I would reiterate that our health system is not so bad after all, but let us make it better.

Padvyuttar Sanshodhan Prakaalp Anudan - 2022

IPHA Maharashtra State Branch is offering financial support, to deserving research proposals of post-graduate students from Medical Colleges in Maharashtra State.

For Details Refer

Newsletter Issue: July – September'22

The project proposal should be submitted through IPHA Maharashtra website only.

Date for submission of research proposal is extended to 15th February 2023

**For Applying Visit: www.iphamaha.org
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Vaccine Coverage and other determinants of Measles Outbreaks

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¹Assistant Professor, ²Associate Professor, Community Medicine, S. B. H. G. M. C., Dhule

Mumbai observed a recent outbreak of measles. Along with that states like Bihar, Gujarat, Haryana, Jharkhand, and Kerala are also currently dealing with an uptick in measles cases. These numbers are projected to increase further. The outbreak points to existing vaccine inequalities in the world, and in India¹.

This isn't the first-time measles has gripped an Indian city. Measles outbreaks have been common in the country - including in Mumbai - in the last few years. In 2018-19, India contributed to the fourth-highest number of cases globally². This is despite the existence of safe and effective vaccines for the rash-causing, fever-inducing disease. The mere availability of vaccines, however, hasn't been able to contain the spread of the disease, especially among economically disadvantaged children.

One factor is the ongoing coronavirus pandemic, which worsened vaccine inequity. "In 2021, a record high of nearly 40 million children missed a measles vaccine dose," a joint statement by the World Health Organization (WHO) and the United States of America's Centres for Disease Control and Prevention (CDC) noted³. During the same time, there were an estimated 9 million cases and 1,28,000 deaths from measles worldwide. Twenty-two countries experienced large and disruptive outbreaks³.

The other factor was the role that Covid19 played in increasing malnutrition around the globe. Globally, and especially in India, measles continues to disproportionately affect children living in poorer communities, which exposes them to an increased risk of malnutrition. However, the current situation cannot be blamed only on the pandemic; it only aggravated an already existing gap in India's vaccine strategy. In 1978, when the Indian government first devised plans for a national immunization program, it did not initially include measles vaccination in its plan, until practitioners, built pressure on the government. Then, in the 1990s, the government's measles immunization program began to falter as the disease began to grow widely prevalent even in children who had received the vaccine dose.

After a series of studies of these children, the government introduced a dual-dose vaccine program for measles

starting in 2010. In 2018, the government rolled out a new Measles-Rubella (MR) vaccination campaign, which is also delivered in dual dosages.

Herein lies another problem: vaccine hesitancy. Schools and parents worried a repeat of the MR vaccine would be an unnecessary and risky double dose. A lot of rumor mongering happens here that the vaccine has side effects. Unfortunately, the situation has not significantly improved and the lack of public health initiatives to address hesitancy disproportionately impacts the poor⁴. As a result, almost half of India's poorest children remain out of reach of immunization programs. This critical gap in India's public health policies remains to be adequately addressed.

Overcrowding, poverty, poor hygiene and sanitation, as well as inadequate nutrition and health care increase the risk of diseases such as pneumonia, diarrhoea and measles in these communities; diseases that are easily preventable with vaccines⁵.

Social marginalization further adds to the problem. Socio-economic factors other than poverty also determine the chances of someone in an already poor community being excluded from immunization programs. Minority group and low female literacy are some other determinants that interact with poverty and cause low coverage.

India's vaccine deficit has several causes: little investment by the government; a focus on polio eradication; and low demand as a consequence of a poorly educated population and the presence of anti-vaccine advocates. While India's poor remain out of reach of most public health initiatives, India continues to be a leading producer and exporter of vaccines globally.

By often confining poor people in crowded unhygienic environments, neglecting the information gap, and excluding them from policy decisions, poverty plays a multidimensional role in extending vaccine inequality. Those diseases for which vaccines are available continue to affect and kill children points to a public health injustice that requires urgent, holistic intervention. (.....Continued on Page 19)

Evidence based, integrated and comprehensive Behavior Change Communication strategies for scale up & sustainability of interventions to reduce maternal & child morbidity and mortality in Bihar

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Introduction:

Evidence on effective behavior change programming for sexual and reproductive health among married youth aged 15–24 in developing countries is lacking. To address this gap, monitoring, evaluation, and special study data from the Promoting Change in Reproductive Behavior of Adolescents (PRACHAR) Project, implemented between 2001 and 2012 in Bihar, over 3 phases using 2 different implementation models (NGO and government-led) was examined.

In many low- and middle-income countries, early marriage followed by early and closely spaced births results not only in elevated risk for maternal and infant morbidity and mortality but also in limited opportunities for educational and economic advancement among young married women.^{1, 2, 3} The 40.8% of young women aged 20 – 24 years in the state of Bihar are married by age 18 and the said proportion (42.5%) has slightly reduced since the preceding five years.⁴ Corresponding proportion in India is 23.3%, which has reduced marginally from 26.5%; since previous five years.⁵

Adolescent fertility rate for women aged 15-19 years (Equivalent to the age-specific fertility rate for the 3-year period preceding the survey, expressed in terms of births per 1,000 women aged 15-19) in Bihar⁴ and India⁵ as reported in NFHS – 5 reports is 77 and 43 respectively. In Bihar, Neonatal mortality rate (NNMR), Infant mortality rate (IMR), Under-five mortality rate (U5MR) reported in NFHS – 5 are 34.5, 46.8, and 56.4 respectively, in Bihar⁴ and in India⁵ the corresponding proportions as reported in NFHS – 5 reports are 24.9, 35.2 and 41.9 respectively. Early and rapid repeat pregnancies and births among young married women (under age 24) are driven by a number of factors, including gendered social norms that require women to demonstrate fertility to prove their value, young women's lack of agency to seek health care, and limited access to contraceptive information and a full range of methods.^{3, 6, 7}

In response to persistently low use of contraception and high rates of early and rapid repeat childbearing among young

married women, there is a growing call to address the drivers of low contraceptive use and to increase young married couples' access to contraception.^{7,8,9} Doing so would address critical unmet need for family planning and contribute to achievement of national and global goals and priorities, such as Family Planning 2020 (FP2020) and the Sustainable Development Goals.^{10,11} Some efforts have been made to increase contraceptive use among married adolescents and youth and to prevent rapid repeat pregnancies, and recent papers have synthesized the primary strategies used in such programs.^{7,8,12}

However, there remains little published evidence from low- and middle-income countries to inform critical program design decisions related to intervention intensity and duration, effective combinations of interventions, and scale up. This makes it critical to learn from the few rigorously documented and evaluated projects that have worked with married young women and their partners to address the social and behavioral constraints to contraceptive use. The Promoting Change in Reproductive Behavior of Adolescents (PRACHAR) Project, implemented in Bihar, India, has amassed a wealth of monitoring and evaluation data on its interventions with young married couples, much of which is unpublished. By synthesizing these data and implementation experiences from more than a decade of PRACHAR implementation, this article seeks to contribute to the growing body of evidence around behavior change approaches for contraceptive use by married youth.

PROGRAM DESCRIPTION:

The PRACHAR Project was designed and led by Pathfinder International and implemented in Bihar, India, from 2001 through 2012. At the time PRACHAR began, Bihar had few programs to address the contraceptive needs of the population, including adolescents and youth. The modern contraceptive prevalence rate was low (22%) for all women of reproductive age, with almost no contraceptive use among married adolescents aged 15–19 (1%) and young women aged 20–24 (5%).¹³ Bihar also had the highest prevalence of early

marriage in India, with 84% of young women married by age 18.¹³ To address this situation, PRACHAR aimed to delay the age at first birth by delaying the age at marriage and increasing voluntary contraceptive use among young nulliparous married women, and to space second and subsequent births by at least 3 years among young married women by increasing contraceptive use including postpartum contraception in Bihar. PRACHAR was designed using a life-stage tailored social and behavior change approach, based on the socio ecological framework.¹⁴ PRACHAR interventions targeted individuals (young men and women aged 12–24), their family members and other gatekeepers (husbands, fathers, mothers, and mothers-in-law), community members (religious leaders, community leaders and elders, male and female teachers, social activists, elected representatives of Panchayati Raj Institutions), functionaries of health services delivery system; both Government and private as well as village based local services providers. Young women and men in PRACHAR areas could have been exposed to PRACHAR at multiple life stages (before marriage, as newlyweds, during pregnancy and at different parities).

For unmarried adolescents, PRACHAR conducted training on sexual and reproductive health and life skills with age-appropriate content for 12–14 and 15–19 age groups, delivered separately to males (by a team of one male and one female trained trainers) and females (by a team of two female trained trainers). Both school going and non-school going male and female adolescents enumerated, recruited and covered with training in batches of 25 – 30 adolescents each.

For newlywed couples, PRACHAR hosted “newlywed welcome ceremonies” (Nav Dampatti Swagat Samaroh) that combined education and entertainment & promoted inter spousal communication. For married young women with up to 2 children, female lay health workers (called “change agents”) conducted home visits, group meetings to counsel and refer women for services at planned intervals timed with life events such as marriage, pregnancy, and newly parenting a child.

Male change agents reached husbands of young married women through regular small-group meetings, which included dialogue and discussion on sexual and reproductive health and gender to promote and encourage informed choice and joint decision on correct and regular use of mutually supported selected contraceptive for required duration of time to effectively delay and space children.

Parents of unmarried adolescents reached with home visits (for mothers by Female Change Agents) and small group meetings (for fathers by Male Change Agents) to promote and encourage participation of their male and female, school going and non-school going adolescent children in the training on SRH issues and support their decisions on continuation of education and delaying marriage. Mothers-in-law of young married women were reached with home visits and small group meetings while fathers – in – law were reached with small group meetings to promote and provide informed support to their young married sons and daughters – in –law to use appropriate modern contraceptive method of their choice for required duration of time to effectively delay and space their children.

Wider community was engaged through community meetings, street theater performances, wall paintings, puppet shows, and information, education and communication (IEC) materials on SRH issues. Government and private-sector contraceptive services were mapped and received small enhancements (e.g., training) from PRACHAR to improve availability, accessibility and affordability by coordinating with social marketing agencies with referrals to these services and follow up made by the change agents.

All activities were mutually reinforcing and used dialogic and narrative content to promote reflection and dialogue that aimed to change attitudes and behaviors related to early marriage, immediate childbearing, birth spacing, (Healthy Timing and Spacing of Children) and contraceptive use.

PRACHAR sought to

- Address men and women concurrently in all behavior change interventions since men play a major role in decision making and lead social change.
- Provide target groups with developmentally appropriate and need based skills and messages.
- Segment youth into subgroups based on their life cycle stage and use multiple communication activities and methods to reinforce behavior change.
- Reach all youth early in reproductive years, before marriage, and continue to reach them at every sequential stage of their reproductive cycle.
- Use culturally acceptable communication tools for delivering messages by local community members.

PRACHAR was implemented in 3 phases with different coverage levels, intervention combinations & durations.

From 2014 to 15, Pathfinder International staff team conducted a review of existing PRACHAR Phases I, II, and III evaluation reports, special studies, presentations, and project monitoring data to synthesize evidence related to the following research question: “What is the evidence from PRACHAR around programming to increase contraceptive use among young married women and men?”

First, we reviewed reports of quasi-experimental studies conducted for each project phase, i.e., population-based surveys among young married women and men in intervention and control areas at baseline and endline.^{16,17,18} In addition, we reviewed reports of special studies conducted to further assess effectiveness of interventions. These included:

- Adolescent Follow-up Survey with youth in PRACHAR Phase I intervention areas who participated in adolescent trainings and other enabling environment interventions, as well as a comparable control group;¹⁹
- A qualitative study on gender norms, attitudes, and practices related to sexual and reproductive health outcomes in PRACHAR intervention and comparison areas;²⁰
- A survey conducted by the Population Council to evaluate the effectiveness of Phase III in building ASHAs' capacity to offer reproductive health services;²¹ and
- A population-based survey conducted by the Population Council to evaluate if the reproductive health outcomes observed in PRACHAR Phases I and II were sustained among new cohorts of women 5–8 years after PRACHAR ended.²²

We also reviewed analyses of individual-level online periodic project monitoring data on participation of young married beneficiaries in project intervention activities and contraceptive uptake among them.

Following the review of existing PRACHAR evaluation and monitoring reports, we identified key gaps in knowledge that would be important to address for program design purposes and conducted secondary analyses of PRACHAR evaluation data to answer specific questions around effectiveness, intensity, and duration of program interventions. We generated bivariate frequency distributions and conducted multivariate logistic regressions with contraceptive use as the outcome variable and a variety of independent variables (demographic characteristics such as age, education, wealth index, and parity); as well as exposure to PRACHAR interventions.

Pathfinder asked the Futures Institute, experts in modeling population and development trends, to look at the question, “What would be the large-scale development implications in other states of India if PRACHAR could significantly delay the age at first birth and space subsequent childbirth, using their RAPID computer software that uses key fertility and health variables combined with socioeconomic indicators, demographic information, and population projections to estimate future impacts.²³

The findings from our review, the secondary analysis and Rapid Modeling were categorized according to key program learning themes in the Results.

RESULTS:

Through the review of PRACHAR evaluation studies, special studies, secondary analysis and use of Futures Institute's Rapid Projection Model we identified evidence around the following six key themes:

I. PRACHAR'S effectiveness in achieving behavioral outcomes:

1. Comprehensive, NGO led intervention model of longer duration of three years which included various behavior change elements and multiple, overlapping communication channels, as in Phase I had the greatest magnitude of effect on contraceptive use among married youth than any other model of PRACHAR. (The odds of current contraceptive use increased nearly four times (O. R. = 3.84; P < 0.001); adjusted for age, education, caste, and parity.¹⁶
2. Contraceptive method – mix remained relatively consistent in Phase I and II, reflecting the limited availability and accessibility of several methods in Bihar at that time, particularly for young married couples. Condoms and Pills were the most commonly used contraceptive methods among young married couples with wife aged 15 – 24 years, of zero and single parity in the intervention and comparison areas. Condoms ranged from 62% - 85% of method mix and Pills from 11% - 27% of method mix. Use of IUDs was negligible (<1.00%) and there was virtually no use of female or male sterilization as expected with a young population.^{16, 17} In Phase III, contraceptive method mix among women aged 15–34 of zero or single parity remained heavily focused on short-acting methods (condoms and pills), with minimal use of female sterilization and some use of traditional methods.¹⁸

II. Effectiveness of selected program components and the intensity required to produce effects:

1. Phase I evidence also sheds light on the relative contribution of specific PRACHAR interventions as well as the intervention timing and intensity required to influence contraceptive use. Home visits by NGO Change Agents (Male and Female) conducting interpersonal communication using pre-developed tools like pictorial flipbooks were found to be effective in increasing contraceptive use among young married women when implemented in tandem with community-led activities that aimed to change attitudes and behaviors. In the Phase I comprehensive model, young married women in PRACHAR intervention areas who were exposed to home visits had more than two times higher odds of currently using contraception than those who did not receive home visits. (aOR = 2.30; P < 0.001), when adjusted for education, caste and Standard of Living Index. Among the Phase II single intervention models, the home visit model (plus service linkages and community-led interventions) had the highest magnitude of effect for current contraceptive use (aOR = 2.0; P < 0.01).¹⁷ No significant effect was seen in the other “single intervention” 2-year models.
2. Bivariate analysis showed that couples reached with both adolescent training and home visits in Phase I had higher rates of ever using contraception than couples reached with only one of these interventions, suggesting a multiplicative effect of these interventions.
3. There is also some evidence of effectiveness of small group-meetings. Phase I and II data show that married women in PRACHAR intervention areas who were exposed to group-meetings (and potentially other interventions as well, had three times higher odds of currently using contraception than those not exposed to small group-meetings (O. R. = 3.16; P < 0.001), when adjusted for education, caste and Standard of Living Index.
4. PRACHAR Phase I monitoring data show that intensity and timing of home visits matter. Women reached with home visits at multiple life cycle stages (newly-wed, before pregnancy, during pregnancy, and after first birth in post-partum period and thereafter) had the highest ever use of contraception started more quickly as compared with women reached at fewer life cycle stages.
5. In addition, a relationship was observed between the number of home visits and ever use of contraception among the young married women with 7-12 visits as the tipping point where more than half of contraceptive users had initiated use. While multiple factors affect initiation of contraception, data suggest that young women who essentially use contraception repeated home visits were required to stimulate contraceptive initiation.
6. It was also found that contraceptive initiation earlier in reproductive life (in any life cycle stage) is correlated with future contraceptive use. Adolescent Follow-up survey show that married young women with one or more children (in both intervention and comparison areas) who had used contraception before their first birth had nearly 14 times higher odds of using contraception after their first birth compared with women who had not previously used contraception. (O. R. = 13.7; P < 0.001).¹⁹ This further underscores the importance of reaching young married women to promote contraceptive initiation early in their reproductive life.
7. Phase I results suggest that a gender synchronized approach in which both male and female partners are engaged; both together and separately; was associated with stronger results than working with only young men or only young women. Couples in which both woman and her partner were exposed to PRACHAR had the highest odds of contraceptive use (aOR = 3.69; P < 0.001), whereas couples in which only the women were exposed to PRACHAR had lower odds of contraceptive use (aOR = 1.99; P < 0.01) and there was no significant use for couples in which only the husband was exposed (aOR = 0.87; P > 0.05).
8. Data from Phase I and II also show that couples had higher odds of contraceptive use when wives participated in decision making about contraceptive use vs. when they did not participate (aOR = 1.5) for couples without children and (aOR = 1.2) for couples with one child.
9. The PRACHAR data do not shed light on the effectiveness of other PRACHAR intervention components. No significant associations were found between exposure to newlywed infotainment ceremonies or cultural programs and current use of contraception by young married women. The added impact of engaging mothers-in-law and other key gatekeepers could not be determined, as young married respondents were not asked if other family members besides their partners (i.e. parents, parents-in-law) participated in PRACHAR activities whereas gatekeepers and community engagement to shift attitudes occurred across Phase I and II intervention arms.

III. Scalability and Effectiveness at Scale:

As per an internal evaluation report by the Population Council, the scalable PRACHAR Phase III hybrid Government-NGO model (using ASHSs instead of Female Change Agents and reducing or eliminating other activities) had significant but smaller contraceptive use gains than Phase I and II.¹⁸ From PRACHAR Phase III baseline to end line the odds of currently using contraception (34%) increased more among young married women in PRACHAR intervention areas than in comparison areas (aOR = 1.34; P < 0.01), when adjusted for age, education and caste. Effect sizes varied by parity (aOR = 1.89; P < 0.05) among women with one parity; (aOR = 1.67; P < 0.01) among women

with more than two children; and no significant effect among women with zero or two children. The smaller effect sizes in Phase III may reflect several implementation factors:

- a. Women in comparison and intervention areas had comparable rates of exposure to visits by ASHAs, (74% and 77% respectively) during the period of three years prior to the survey.²¹
- b. Among women contacted by ASHAs, only 28% women in intervention areas and 17% of women in comparison areas reported that ASHAs discussed family planning with them. (For reference, 78% of women in intervention areas and 79% of women in comparison areas reported that ASHAs discussed child immunization with them.²¹
- c. ASHAs had lower home visit coverage rates for zero parity women which was a key target population for PRACHAR. Only 43% of zero parity women were reached at least once in both, intervention and comparison groups compared with 78% to 86% of women of parity one or higher. Only 44% of zero-parity women visited by ASHAs received 13 or more visits in the past 3 years, compared with 61% to 74% of women of parity 1 or higher.²¹
- d. Phase III also lacked significant behavior change interventions with gatekeepers such as mothers – in – law and other community influencers.

IV. Sustained Project Impact:

1. According to a study conducted in 2015,²² the current contraceptive use gains achieved in PRACHAR Phase I and II persisted several years after the intervention ended; both among those directly exposed to PRACHAR as well as those living in the intervention areas at the time of survey, but not directly exposed to PRACHAR.²² Married women aged 15 – 34 years in the areas where PRACHAR Phase I and II were implemented 4 – 8 years earlier had two times higher odds of ever using contraception (aOR = 2.06; P < 0.001) as well as had more than one and half times higher odds of currently using contraception (aOR = 1.57; P < 0.001) as compared to the corresponding group of women in comparison areas where PRACHAR was not implemented. Findings of bivariate analysis showed that the highest current contraceptive use of 43% and highest ever contraceptive use of 57% was among the married women living in areas where PRACHAR Phase I was implemented.
2. Sustained effects were also seen for initiation of contraceptive use immediately after marriage and after first birth among specific parity groups. Married women with zero or one child living in former PRACHAR Phase I areas had nearly five times higher odds of initiating contraceptive use within three months of consummation of marriage than women in comparison areas (aOR = 4.95; P < 0.05), with 4.1% of women with zero children and 5.9% of women with one

child initiating contraception in this time frame, (vs. 0% and 2.1% in comparison groups respectively) Married women with one child in former PRACHAR Phase I areas had three times higher odds of initiating contraceptive use within three months of their first birth (aOR = 3.13; P < 0.05), with 10.2% of women with one child initiating contraception during this time frame (vs. 2.9% in comparison areas). Married women with two children in former PRACHAR Phase II areas had 61% higher odds of initiating contraception within three months of their first birth (aOR = 1.61; P < 0.05), with 15.1% of women with two children initiating contraception during this time frame (vs. 9.8% in comparison areas). In addition to the contraceptive behavior changes sustained after the intervention ended, there is some evidence that PRACHAR led to sustained attitudinal shifts around Healthy Timing and Spacing of Pregnancies.

3. Women in former PRACHAR intervention had significantly greater odds of preferring an ideal age at first birth of 21 years or older (aOR = 1.60; P < 0.001) and preferring a birth interval of at least 36 months (aOR = 1.46; P < 0.001) than women in comparison areas.²²
4. Several years after PRACHAR Phase I and II ended, qualitative data from program participants indicated that PRACHAR had played a role in shifting community perceptions on girls' sexual and reproductive health, specifically the use of contraception by adolescents and youth for Healthy Timing and Spacing of Pregnancies.²⁰
5. The evidence and Learning generated from a decade of PRACHAR implementation have important implications for the design of future programming, both in India and in a range of other countries that face similar challenges of early marriage, early and rapid, repeat pregnancies among young married women and inequitable social and gender norms.²⁵ The evidence and Learning also raise critical questions around scale – up and sustainability that should be explored in future programming for married youth.

V. PRACHAR'S effectiveness in reducing Maternal and Child mortality and morbidity:

Futures Institute used RAPID model to project impact of PRACHAR scenario – youth Sexual and Reproductive Health interventions; on health. Projection model predicts that under PRACHAR Scenario TFR will show maximum decline from 3.5 in 2010 to 1.7 in 2025 and the population will have fewer people than the Current Scenario. Further, this significant change in population momentum will have multi-sectoral impact and we can see fewer Youth producing a smaller next generation and fully capture the demographic dividend and associated economic, health, and environmental benefits. Targeting investments

for delaying first birth and spacing the second are critically important to accelerate progress and help achieve its fertility, development goals. Pathfinder's PRACHAR program demonstrates that it is possible to do exactly that.

The data from the RAPID suggest that targeted investments in adolescents and youth (PRACHAR scenario) are the key to achieving ambitious goals related to maternal mortality, infant mortality and childhood malnutrition.²³

1. The reduction in risky pregnancies under the PRACHAR Scenario translates into fewer risky births (birth below maternal age 18, birth above maternal age 34, birth order of 4 or higher, birth occurring within 24 months of previous birth) as compared to the Current Scenario.
2. The number of risky pregnancies is related to age specific fertility rates and the Couple Protection Rate. The easy way to say it is that the increase in CPR causes reductions in some of the high-risk categories, such as too many, too late, and in case of PRACHAR, too early (because it eliminated births to young women) There is also a small difference in the too soon category, although this is small. Rapid model predicted 120,649 fewer maternal deaths cumulatively for the period 2005-2035 under PRACHAR Scenario compared to Base scenario
3. Rapid model predicted that the PRACHAR Scenario would also result in decreasing the infant mortality rate by two thirds by 2035. This is equivalent to 2.9 million fewer infant deaths between 2010 and 2035 compared to the current scenario. This reduction is due to the combination of lower fertility and fewer risky births.
4. Rapid model also predicted that under the PRACHAR Scenario there will be 4.4 million fewer stunted children in 2035, compared to the Current Scenario. This would translate into more healthy children and less strain on the health system in treating these malnourished kids.

VI. Cost – effectiveness of PRACHAR

To answer the question: "What did PRACHAR cost?" The Futures Institute analysis of the results of PRACHAR about contraceptive use during Phase I and II suggest that it averted approximately 33,351 births. Based on the direct cost of implementing the program, it is estimated that PRACHAR cost about \$90 dollars per birth averted.

A commonly cited rule of thumb for cost effectiveness based on a report by the WHO Commission on Macroeconomics and Health suggests that PRACHAR interventions are "very cost-effective" if the cost per outcome is less than the per capita GDP. The cost per birth averted under PRACHAR was \$90, less than the GDP per capita adjusted for PPP (Purchasing Power Parity) in 2004-2005 - \$465. Therefore, PRACHAR is very cost effective.²⁴

SUMMARY LIST OF BEHAVIOR CHANGE COMMUNICATION STRATEGIES USED IN PRACHAR

1. *Comprehensive NGO led PRACHAR model of longer (3 years) duration with multiple reinforcing interventions tailored to specific life stages and aimed at different levels of a socio ecological model can effectively increase contraceptive use among married young people in a conservative context. It is most effective in increasing contraceptive use among married youth.*
2. *Contraceptive method – mix remained consistent over a period of five years of PRACHAR Phase I and II (2001 – 2006). This was due to limited availability and accessibility of several methods in Bihar at that time particularly for young married women. Condoms and Pills were the most commonly used contraceptive methods among young married women aged 15 – 24 years of zero and one parity, both in intervention and comparison areas.*
3. *Home visits by NGO Change Agents (Male and Female) conducting interpersonal communication were effective in increasing contraceptive use among young married couples when implemented in tandem with services linkages and community – led intervention activities that aimed to change attitudes and behaviors.*
4. *Couples reached with both adolescent training and home visits had higher rate of ever use of contraceptives than couples reached with only one of these intervention activities, indicating multiplicative effect of these interventions.*
5. *Married women in PRACHAR intervention areas who were exposed to group meetings (and potentially other interventions as well) had higher odds of currently using contraception than those not exposed to small group meetings.*
6. *A gender synchronized approach in which both, male and female partners are engaged together and / or separately, was associated with stronger results than working with only young married men or young married women.²⁶*
7. *Women reached with home visits at multiple life cycle stages (newlywed, before pregnancy, during pregnancy and after first birth in post-partum period and thereafter) had the highest ever use of contraception more quickly after their first birth compared with women reached at fewer life cycle stages.*
8. *Women who had used contraception before their first birth were more likely to use contraception after their first birth than those who had not previously used contraception. This finding has relevance to a range of contexts and quantitatively reinforces the importance of interventions across the life cycle, including prior to the first birth.²⁷*
9. *More than half of contraceptive users had initiated use after multiple home visits (at least four monthly home visits were required to initiate contraceptive use) with 7 – 12 visits as tipping point.*

10. It is important to reach young married couples early in any stage of their reproductive life cycle to promote contraceptive initiation early in their next reproductive life cycle stages.
11. ASHAs had lower coverage rates for zero parity women which was a key target population of PRACHAR compared with women of parity one or higher.
12. ASHAs in PRACHAR Phase III also lacked significant behavior change interventions with gatekeepers such as mothers – in – law and other community influencers.
13. Current contraceptive use gains achieved in PRACHAR Phase I and II persisted several years after the intervention ended both, among those directly exposed to PRACHAR as well as those living in the intervention areas at the time of survey conducted 4 – 8 years after the end of PRACHAR but not directly exposed to PRACHAR.
14. Sustained effects were also seen for initiation of contraceptive use immediately (within three months) after marriage and within three months after first birth among the respective specific parity groups.
15. The PRACHAR experience suggests that there are trade-offs for behavior change approaches when moving from a more intensive, NGO implemented approach to an approach that may be more easily scaled but relies on overburdened government workers or systems. A smaller effect size in PRACHAR Phase III reflects following factors: A. Women in comparison and intervention areas had comparable rates of exposure to home visits by ASHAs. B. Among women contacted by ASHAs only a small proportion (28%) of women in intervention areas and (17%) in comparison areas reported that ASHAs discussed family planning.
16. In addition to the contraceptive behavior changes sustained after the intervention ended, there is some evidence that PRACHAR led to sustained attitudinal changes / shifts around Healthy Timing and Spacing of Pregnancies (preferred age at first birth of 21 years or preferred birth interval of 36 months or higher).
17. Rapid model of Futures Institute has predicted PRACHAR Scenario resulting in higher reduction of Total Fertility Rate, maternal mortality Ratio, Infant mortality and Childhood Malnutrition during the period 2010 – 2035.
18. Based on Rapid Modeling of Futures Institute, PRACHAR Project is cost – effective also; since the project cost per outcome (birth averted) is less (USD 90) than the per capita GDP (USD 465) adjusted for PPP (Purchasing Power Parity) in 2004-2005.
19. The evidence and learning generated from a decade of PRACHAR implementation have important implications for the design of future programming both in India and in a range of other contexts that face similar challenges related to Healthy Timing and Spacing of Pregnancies.

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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.**

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Sensitizing the volunteers about food safety and food hygiene working in kitchen of philanthropic organization in Sakwar - An Interventional study.

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Introduction:

“One cannot think well, love well, sleep well, if one has not dined well.”

-Virginia Woolf

From the ancient time man is experimenting on his food but doing this some things never lost their importance like food safety and food hygiene. Foodborne diseases have been an important public health problem since the beginning of humanity. The impact of these diseases may vary according to countries, but foodborne diseases is a global problem. Every year foodborne diseases cause almost 1 in 10 people to fall ill, 33 million healthy life years lost. Foodborne diseases can be deadly, especially in children <5. Foodborne disease are preventable, everyone has a role to play.

In India they say “ANNAM PARABRAHMA SWAROOPAM”. Food is equated with the Almighty Lord. But India is still facing challenges in food safety, poor food hygiene. This leads to the increase in burden of foodborne diseases in India. In India, Food safety is a cross cutting issue with prominent stakeholders in non-health areas such as the food industry, agriculture, standardization/regulation authorities, food distributors and the general public.

Lack of knowledge of food safety, improper food hygiene practices, food mishandling are some of the reasons which contribute in foodborne diseases. Since most of the foodborne diseases are preventable, everyone who works in kitchen must have the proper food safety knowledge. Some simple steps can also help to improve food safety and hygiene like a) Clean— Wash hands and surfaces often. b) Separate — Separate raw meats from other foods. c) Cook — Cook to the right temperature. d) Chill — Refrigerate food promptly.

In India FSSAI, has given the guidelines for food safety. The norms apply to small and medium restaurants/food outlets/food establishments involved in the processing, manufacturing, handling, distribution and serving ready-to-eat food in their premises including caterers. But maintaining the food safety at household

level, community gatherings, community kitchens is also important. Therefore, it is important for those who work in kitchen knows about the food safety and food hygiene. Not only professional kitchen workers but also every person who is involved in kitchen work should aware of proper food handling practices. This study mainly focusses on knowledge of food safety and food hygiene in people voluntarily working in Ramakrishna Mission’s (RKM) kitchen at Sakwar in Palghar district.

RATIONALE OF THE STUDY

Globally the foodborne diseases are increasing the morbidity and mortality. Most of these diseases are preventable through practice of food safety and food hygiene. All who works in kitchen, in spite of their rank, frequency must know the proper food safety. According to A Questionnaire-Based Survey on Food Safety Knowledge during Food Handling and Food Preparation Practices among University Students, development and delivery of a food safety education program for participating food recovery agency personnel and volunteers will increase food safety knowledge and indication of adoption of safe food handling behaviour. This will presumably decrease the risk and incidence of food-borne illness in those receiving assistance.

During the article research we didn’t come across the data on food safety knowledge in food handlers or voluntary kitchen workers in Palghar district. This study will allow to assess the influence of interventional tool which is health education on the knowledge of food safety and food hygiene in people who works voluntarily in kitchen. This can help to develop insight in public health department.

Aim:

To Sensitize the voluntary kitchen workers about food safety and food hygiene.

Objectives:

1. To assess the knowledge of voluntary kitchen workers regarding food safety & food hygiene in Ram-Krishna Mission Ashram, Sakwar, District- Palghar.

2. To assess the change in level of knowledge after the use of an interventional tool.

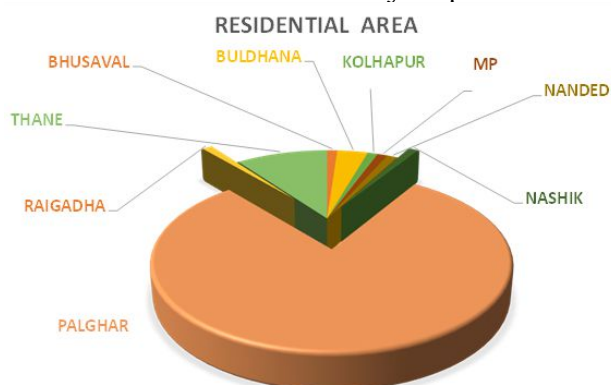
METHODOLOGY

- Study type- Interventional study
- Study Design- Pre-test and Post-test
- Study Area- RKM, R.H.T.C Sakwar, District- Palghar
- Study Subject- People who work voluntary in RKM's kitchen, Sakwar
- Inclusion Criteria- All candidates who work voluntary in RKM's kitchen, Sakwar
- Sampling Method - Complete enumeration method
- Sample size - 90

Result and Discussion

- ❖ Age distribution is between min.18 years to max.28 years, with majority of students are of 19 years old (25.9%)

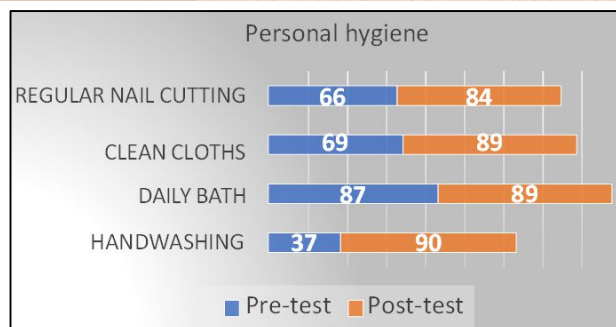
Distribution of Study Population



- ❖ Socioeconomic classification according to B.G. Prasad classification

CLASS	FREQUENCY	PERCENT
Lower class	11	12.22%
Lower middle class	14	15.55%
Middle class	9	10.00%
Upper middle class	39	43.33%
Upper class	17	18.88%
TOTAL	90	100.00%

- ❖ Distribution of participants knowledge about personal hygiene before and after the study
 - a. Knowledge about food-borne diseases: Only 5.2% of students had knowledge about water borne diseases i.e., Diarrhoea, Enteric fever and Hepatitis A, which showed improvement after intervention (67%).
 - b. Out of 90 only 2 students were not immunized with Hepatitis B vaccine, and 10 were not immunized with Tetanus toxoid.



c. Out of 90, only 5 of the participants had previously attended a lecture on food safety.

- ❖ Distribution of participants practices about Kitchen hygiene before and after the study.

Parameter	Pre -Test	Post-Test
Washing raw vegetables	90	90
Not to overcook	90	90
No frequent reheating	25	66
No repeated freezing	20	75
Buying regularly	82	87
Discard expired material	72	88
Buying fresh material	75	90

Conclusion

1. Majority of study population was resident of PALGHAR district (80%)
2. In parameters used for food safety and food hygiene paired t-test were applied which show no significance for refreezing ($P=0.503$) and frequent reheating ($P=0.075$).
3. In spite of having knowledge, 15% students didn't practice appropriate handwashing technique in 7 days.
4. This study provides an evidence that knowledge of food safety and food hygiene can be improved by interventional measures.

Recommendations

- For more efficiency of interventional tool, IEC material can be provided to participants.
- There should be sensitization programme at regular interval for sustainable impact of basic food safety measures like handwashing. as in India on many occasions people voluntarily work in kitchen to provide food for groups and also at institutions running on non- profit basis people work voluntarily in kitchens.
- In India FSSAI has given guidelines for food safety for restaurants, small eateries but there are no particular guidelines for voluntary kitchen workers. Hence guidelines need to be formulated for this group.

Housekeeping services at Rural Hospital in Maharashtra - A Case Study

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Introduction:

Personal and environmental hygiene constitute the bedrock of community health. In the fast evolving world that we live in, growing concerns of health and diseases have brought focus back, once again, on the role hygiene and cleanliness play in our lives. And the health care sector is a primary section where meticulous attention to cleanliness and hygiene can go a long way. A clean environment improves healing and fastens recovery, besides enhancing patients' experience at a health facility.

Moreover, health care organizations are complex environments that contain a large diversity of microbial flora, hence posing risk to the patients, staff and visitors in the environment.¹ Housekeeping constitutes the supportive service department in a hospital, which is responsible for cleanliness, maintenance and aesthetic upkeep of patient care areas, public areas and staff areas. It is necessary to maintain cleanliness and hygiene in hospitals, with strict adherence to the National guideline for infection control practices². Hence in a community burdened with communicable diseases, a study based on assessing the quality of the Housekeeping services at hospitals felt intriguing and significant.

P.R.I.D.E. (Planning Rural-Urban Integrated development through education), India is a registered non-governmental organization formed in 1982, the core foundation of the organization is based on a holistic approach to bring about sustainable change in the marginalized communities, living in rural and urban poverty. The organization came up with the initiative of SPARSH (Sastur Project of Action Research Services Through Hospital) in the wake of the 1993 Maharashtra earthquake. They set up a 30 bedded SPARSH rural hospital in Sastur village in Osmanabad District, as a public-private partnership initiative, along with the outreach program through mobile medical units, focusing on providing quality health services to rural poor in Marathwada region. Current study is done to evaluate the housekeeping services and to do risk categorization of SPARSH hospital using National guidelines.

On 15th May 2015, as a part of the Swachh Bharat Abhiyaan campaign, the

Ministry of Health & Family Welfare, Government of India launched "Kayakalp" a National initiative to give awards to those public health facilities that demonstrate high level of cleanliness, hygiene and infection control.³ The initiative was launched with an objective of promoting cleanliness and delivery of quality health care services through Public Healthcare Facilities (PHF).⁴

The Kayakalp Assessment tool is to assess the standards of healthcare practices in the hospital i.e., Hospital Upkeep, Sanitation and Hygiene, Waste management, Infection control, Support Services and Hygiene Promotion.⁵

Methodology:

A descriptive case study was conducted in SPARSH Hospital located in Sastur village in Osmanabad District, Maharashtra. The objectives of the study were, to risk categorize SPARSH hospital based on National guidelines, to assess the hygiene and sanitation of SPARSH hospital using Kayakalp checklist, and to compare the manpower, occupational health and safety measures with National guidelines for clean hospitals- Kayakalp 2015. For the study we used the Kayakalp guidelines as the study tool, and the study was conducted over a period of one month in January 2020, by direct interview of staff and observation of registers. The Kayakalp checklist was used to assess the sanitation and hygiene of the hospital. Scoring system as per the checklist was used to check the compliance, giving 2 marks for the Full Compliance, 1 for Partial Compliance, and 0 for Nil Compliance.

Result & Discussion:

Risk categorization, Manpower, Occupational Health and Safety Measures were assessed using Kayakalp guidelines for clean hospitals. In risk categorizations, based on degree of contamination, areas were divided into high, moderate and low risk (as shown in Table1), then each category was assessed using the Kayakalp guidelines. It was found that out of the total 9 categories, 8 of them had scored 10/10 (Table 2). The category "Use of Standard methods of cleaning" scored only 7/10, as only one bucket was being used at a time while cleaning, in place of three bucket system put forward by the guidelines, and

for not using separate mops for critical areas, semi critical areas and procedure surfaces as prescribed in the guidelines.

**Table 1 –
SPARSH Hospital Risk Categorization**

High Risk	Moderate Risk	Low Risk
OT-1	General Ward -2 PNC Ward -1	OPD Area
Procedure / Emergency Room -1	Laboratory -1	Office Rooms and Counselling Room
Labour Room -1	Blood Storage Area -1	Health Talk Hall
Toilet -5 set	Pharmacy -1	Store Room
HIV Ward -1	Canteen	Staff Areas
NBSU		Surroundings

In the assessment of Manpower, with a total of 11 cleaning staff working around the clock in 3 shifts, hence 3-4 staff per shift, fulfilled the requirement of minimum one cleaning staff per shift in a 30 bedded ward. In spite of lack of a separate sanitation department, hospital was found to be functioning adequately, with sanitation supervision being done by staff nurses in charge.

Hospital was found to be lacking in Occupational health and safety measures. Proper recommended usage of Personal Protective Equipment was not being followed; gloves were seen to be used only while handling blood. Moreover, the cleaning staff were not appropriately vaccinated.

Table 2 - Kayakalp Scoring

Sanitation and Hygiene	Score
Cleanliness of circulatory area	10/10
Cleanliness of wards	10/10
Cleanliness of procedure areas	10/10
Cleanliness of ambulatory area (OPD, Lab, Emergency)	10/10
Cleanliness of auxiliary areas	10/10
Cleanliness of toilets	10/10
Use of standard materials and equipment for cleaning	10/10
Use of standard methods of cleaning	07/10
Monitoring of cleanliness activities	10/10

In hospital upkeep, “Shramadaan”, a weekly activity on Saturdays, is

conducted at 8 am, where the entire hospital staff (including medical, paramedical and clerical staff) and bystanders of patients come together to clean the hospital surroundings.

Conclusion & Recommendations:

Despite belonging to a remote rural locality, SPARSH hospital has performed exceedingly well in the department of hospital cleanliness and hygiene. The hospital housekeeping services are found to be at par with the Kayakalp guidelines with adequate staff, cleaning frequency and proper maintenance of registers. These findings corroborate the fact that the hospital is a two-time recipient of the ‘Kayakalp Award’. However, in the area of standard methods of cleaning, it was observed that requirements like usage of the three-bucket system, and separate mops for critical, semi critical and procedure areas, were not met. Furthermore, workers were found to be not using PPE while cleaning; gloves were being used only for blood handling. And cleaning staff were not appropriately vaccinated. Hence, improvements can be made in these specific sectors, with proper education and guidance for the same.

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Adult Vaccination: a way forward...

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Long ago in 1796, an English physician and scientist, Edward Jenner, gave us the first ever vaccine, the Small pox vaccine. As the science advanced and research developed many more vaccines were made and have been in use. When we comment anything on vaccination, first thing that comes to mind is childhood vaccination. Adult immunization is still a far-fetched dream in our country.

Today the entire world is fighting one of the deadliest Pandemic of the history, the CoVID-19 disease, caused due to SARS CoV-2 virus. With the advent of so many emerging and re-emerging diseases the world population is vulnerable to many infections. The International travel has made it easy for the infections to travel far off and spread in all parts of the world.

Vaccination is one of the most cost-effective way to tackle the diseases with high morbidity and mortality. Currently we all are witnessing one of the largest adult vaccination drive all over the world. This pandemic has given us a new way to look forward towards the vaccination of the high-risk adults along with their contacts. In developed countries adult vaccination is carried out as there is demand for the same. But in developing countries it is still on a backseat. There are many challenges currently faced in view of adult immunization in our country. Firstly, it is not a perceived need of the people. There are many diseases which are vaccine preventable in adults like pneumococcal infections, meningococcal infection, cholera, hepatitis A etc. but there is no awareness among people regarding these vaccines. Secondly, public health focus is mainly on Immunization of Under-five children rather than on adult immunization owing to more deaths in children which are vaccine preventable. But to add here, we have been successful in eliminating Poliomyelitis and Neonatal Tetanus from our country.

Many people as well as health care workers doubt the need and efficacy of adult vaccines. There is a necessity to create awareness among health care professionals regarding adult immunization, which will in-turn help to create the demand for the same. Public health is currently focusing on adult vaccination in view of Covid disease. Similarly, a focus on adult immunization specially to those who

are high risk e.g., Immunocompromised individuals, those with organ transplants, those travelling to endemic countries etc. is also needed.

Another issue with adult vaccination is the cost of vaccines. Most of these are costly and not available in the government supply. As these vaccines have less demand their cost factor is a concern.

In our country the most important factor in consideration is the perceived need of the public. We are still struggling to get the curative services for all at an affordable price. Preventive services are still thought to be secondary.

Adult vaccination is an upcoming field in the private industry as of today. But we never know when some diseases like Covid turns up and we need to focus on vaccinating all, specially all adults. It is definitely a way forward to think up to.

Vaccine Coverage and other determinants of Measles Outbreaks
(..... Continued from Page 06)

Access to immunization has led to a dramatic decrease in deaths of children under the age of five from vaccine-preventable diseases, and has brought the world closer to eradicating deadly scourges like polio and measles but despite this progress, 1.5 million children still die from diseases, which can be prevented by vaccines⁶. These deaths are rooted in social inequality, and exclusion from public health measures. Ensuring universal vaccine coverage is thus not enough; it may fail as a policy measure if the government does not address it as a public health problem urgently.

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Research Study Abstracts of Winners of IPHA Maharashtra Branch Scheme

Padavidhar Sanshodhan Prakalp Anudan
for M.B., B.S. Students of Medical Colleges in Maharashtra

2021: Anusha Ravindra Sholapurkar*

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A cross sectional study of health-related aspects, migration specific issues and awareness about Government and other official services among migrant workers working in campus of an Educational Complex in rural area of North Maharashtra.

Background: Migrant workers are prone to poor health, low wages, and 3D works (degrading, dirty and dangerous), fear for loss of job and poor living standards, taking jobs that local residents would refuse at times. Awareness about the rights and laws pertaining to them is usually poor too. This study was planned with the objective of assessing health related aspects of migrant workers, migration specific issues and awareness about Government and other official services. **Methods:** Study was conducted on campus of an Educational Complex. The questionnaire was administered by the researcher in local/national language as per need individually to each participant. This was followed by General Health Examination. The questionnaire was divided into five subgroups: Section I: Socio Demographic data; Section II: Health related aspects of Migrant Workers; Section III: Migration Specific Issues; Section IV Personal Traits; Section V: Awareness about Government and other official services. Anthropometric measurements were taken followed by physical examination. Treatment was provided for the ailments which were diagnosed at the time of health check-up. A Health talk was given at the end of the session regarding good hygienic practices, prevention and treatment of addictions, various government schemes and how to avail them etc. **Results:** Prevalence of Obesity, Hypertension was around 10 % respectively. Majority of the population was totally unaware of the labour laws and medical schemes (more than 95%) pertaining to them. Whereas a majority of them had bank accounts (79%) on their name for salary purposes due to the agency company rules, same could be seen in the low addiction rates (72.86 %) due to the company rules. Knowledge about the use of personal protection gear use and its application was seen (72%). Along with the precautions regarding working in a hospital cases of needle prick injuries could be seen with no notion regarding its effects. A direct correlation regarding home visiting and happiness of the people could be gauged. Lack of hygiene, cleanliness & basic necessities could be observed. **Conclusions:** Routine health check-ups, information about personal protection measures, can lead to effective prevention of ailments Steps need to be taken regarding the accessibility with acceptability of the schemes and policies in their regards. Special attention should be paid in regards to provision of basic facilities for better life and their upliftment.

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