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Samvit: Lessons from the Field

WE CARE

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SAMVIT: LESSONS FROM THE FIELD

A presentation

By

Jasani Center

For

Social Entrepreneurship

&

Sustainability Management

School of Business Management, NMIMS

SVKM's NMIMS, V.L. Mehta Road, Vile Parle (West), Mumbai – 400056 (India)

Foreword

Even after 74 years of independence, India appears to be fractured and unequal. Disparities persist across social groups, states, and rural-urban areas, reflecting inequalities in the opportunity to access essential services. The lockdown due to the pandemic further sharpened the edges of inequality, pushing a large section of the Indian society to face the vagaries of economic misery. According to the study on "Impact of COVID-19 on SDG progress: a statistical perspective by United Nations," India faces significant challenges in 10 of the 17 SDGs, including zero hunger, good health, gender inequality, unemployment, among others. The most crucial link in the causal chain between reducing inequities and economic growth is the economic empowerment of the poor. Economic growth is a pre-requisite for both governments and the private sector to raise their social sector investments. To bridge the social and economic inequities, significant amounts of resources have to be allotted in education, public health, skilling, and livelihood support activities.

To get a reality check on the struggles faced by the poor, the School of Business Management's MBA students had to undergo a three-week 'We Care' internship in February 2020, which was before the lockdown. Besides social sensitization, the internship has helped students gain knowledge about the strategies adopted by NGOs to address the target population's concerns. They have realized that social and economic inequities can be addressed only through 'enabling' people. The stories of change have been instrumental in transforming their social perspective and have triggered them to appreciate the application of management approaches to bring social transformation.

The current anthology *Samvit: Lessons from the Field* is based on the students' experiences concerning challenges faced by the disabled, the ultra-poor, trafficked women, and the citizens at large. I am confident that the knowledge gained through experiential learning will facilitate assimilation of knowledge about the functioning of the larger society and aid in awakening the students' innate ability to live the life of the soul and appreciate the validity of maintaining socially responsible behavior. In years ahead to come, I am sure that our students, wherever they work, will strive to adopt pro-poor approaches and lay the foundation for creating a peaceful world order.

Dr. Ramesh Bhat
Vice Chancellor
NMIMS

Unfolding the Pages of the Anthology...

Acknowledgments

The *We Care: Civic Engagement* internship is being executed successfully by the Jasani Center for Social Entrepreneurship & Sustainability Management for the past ten years. The initiative has been keenly supported by Shri Amrish Patel, Chancellor, NMIMS, Dr. Ramesh Bhat, Vice Chancellor, NMIMS & Dean, School of Business Management and Dr. Sharad Mhaiskar, Pro ViceChancellor.

We would like to acknowledge the support extended by the office bearers of Shri Vile-Parle Kelvani Mandal (SVKM) for enabling us to undertake the We Care initiative. We sincerely thank them and look forward to their continuous support.

We also take this opportunity to thank all faculty colleagues for providing mentorship support to the students. We thank the administrative staff for supporting the We Care Programme wholeheartedly. Our sincere appreciation is due to all the internship placement organizations for rendering their cooperation in placing our students.

We thank all the student contributors for sharing their We Care experiences for the publication of this volume.

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Dr. Meena Galliara,
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Preface

Since the past 11 years, the *We Care: Civic Engagement* internship by the School of Business Management has been sensitizing its full-time MBA students towards social issues. It provides an opportunity to the students to experience and understand the concerns of the marginalized sections of the society in which they reside. The experiences gained while working towards identifying solutions to the prevailing problems aids in bringing about a mind-set change among the youth.

The internship is in its tenth year. The 2020 We Care placement was spread across 24 states and two union territories with 677 students placed in 256 social organizations.

The present publication *Samvit: Lessons from the field* is an outcome of the experiences gained by our students through the We Care: Civic Engagement internship. Current anthology is a collection of articles based on issues pertaining to disability, health, and economic empowerment of the marginalized.

The experiential learning gained by the students is captured in the current publication in three sections. The article on *Enable & Empower: Review of Skill Development of PwDs* in Section I describe the skill initiatives designed by the Government of India (GoI) for PwDs and analyses the impediments in its execution. To attain the 2020 Agenda of 'leaving no one behind' which includes the PwDs residing in remotest part of India, the paper underscores the importance of participation of the private sector in designing market based solutions as well developing policy and programme interventions based on constantly updating the PwD data.

Section II is based on SDG 3- Good Health and Well-being with special emphasis on curative, promotive and preventive health. The first article, *Situational Analysis of Assistive Technology for the Disabled in India* maps the situation of PwDs in India through scrutinizing a research study conducted by Amaltas Consulting Ltd. The study highlights barriers in accessing assistive technology (AT). It indicates lack of updated disability data as a primary factor affecting the forecast of AT for PwDs. Besides, other factors like affordability and unavailability of required AT also are further responsible in marginalizing the PwDs. To address the issue, the article proposes recommendations in the area of updating PwD data with greater accuracy and retrieving the same for developing supportive policies. A step towards designing market based solutions for improving the access of PwDs to avail AT will ensure their faster inclusion in the society.

The second article, *Gap Analysis: Status of CHCs and PHCs in Lucknow*, examines the existing public healthcare system in Lucknow, Uttar Pradesh specifically concerning primary and community health centres. The research findings confirm the poor state of affairs at the health care centres are due to shortages of physical & technical infrastructure as well as medical and paramedical work force, which is unable to cope up with the health requirements of the population. This subsequently influences the quality of healthcare and erodes the trust of the patients on the public health system. To improvise the state of affairs, the article spells out the need to increase budgetary allocations to facilitate appointing adequate manpower, upgrading health facilities and capacities of staff for ensuring resource optimization.

The third article*, on Impact Analysis of School Health Programme* describes the NGOs objective in implementing the programme. It discusses the role of parents, teachers and the NGO in generating awareness on nutrition, personal safety and general well-being of students. The paper evaluates the impact of NGO intervention on behavioural change among children and strength of the School Health Programme.

The fourth article *A Study on Public Perception of Road Safety at Ghodbunder Road aligns with* Target 3.6 of SDG 3 (Eliminating causative factors for road accidents to reduce the global deaths and injuries). The article presents the perceptions of commuters about road safety. Respondents of the study attribute cognitive, behavioural, infrastructure and legal factors, as major reasons for rising accidents. To improvise the current situation, the paper recommends in accelerating transformational change among road users through capacity building interventions, instituting severe penalty provisions and strengthening the traffic authorities to execute road discipline.

The Section III comprises of two articles align with SDG 8 - Decent Work and Economic Growth for the most underprivileged sections of the society. The first article *Empowering Trafficked Women – Case of Swift Wash* underscores the plight of trafficked women post rescue operations and the challenges in rehabilitating them. While studying the functioning of Swift Wash, a commercial laundry set up by ARZ to economically empower rescued women, it examines the operational gaps in managing the laundry business and proposes managerial solutions to rectify the same. To reintegrate rescued women back in the society and prevent them from re-entering the sex trade and curtail trafficking at large the paper offers a couple of recommendations in the area of gender sensitization, public education, skill development and related others.

The third article, *on City Livelihood Centre: A Hope for Urban Poor* examines the status of migrant labour and urban poor in Kanpur who experience perpetual poverty. To make migrant labourers job worthy, City Livelihood Centres (CLC) were introduced under the National Urban Livelihood Mission. The article describes the efforts taken by AWARD-NGO in managing the CLCs and identifies various gaps in its functioning. To make CLC members sustain in the market, the authors propose an action plan and emphasize on creating an appropriate eco system to execute the action plan.

The process of guiding the students to draft the articles and subsequently edit them took a span of six months. Despite observing due diligence in editing the document, there is a possibility of grammatical/typographical errors in the publication. Readers are requested to kindly excuse us for the same.

Dr. Meena Galliara,
Director,
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Prologue

India, post-liberalization has become globally competitive. But, the impressive growth rates have been accompanied by a growing gap between the rich and the poor. The government alone is unable to bridge this gap to a large extent which has been created by the business sector. The conventional view of businesses being merely compliant is no longer accepted by the stakeholders. To avert the social and environmental risks and ensure long term sustenance businesses are developing inclusive business models and are investing resources to address the needs of the resource-constrained population. To enable MBA students, understand the symbiotic relationship between business and society, the School of Business Management, NMIMS has designed We Care: Civic Engagement internship. In February 2020, 677 full-time MBA students, were placed in 256 social sector organizations for three weeks across 24 states and two union territories. In all, they contributed 96,827 working hours and handled projects which aligned with SDGs related to Quality Education and lifelong learning (SDG 4), Good Health and Well-being (SDG 3), Decent Work and Economic Growth (SDG 8), Gender Equality (SDG 5), Poverty Elimination (SDG 1), Reduced Inequality (SDG 10) and so on.

While students get inputs on how Indian businesses influence the economy and the larger society through its operations, the social internship allows the students to get the firsthand experience to examine how businesses contribute to creating social inequities. Consequentially, how these inequities have a direct and indirect impact on a business as well as on larger society.

The current anthology *Samvit: Lessons from the Field* documents students' experience in examining the social inequities in the area of Health (SDG 3) and Economic Empowerment (SDG8) of the marginalized sections of the society and the innovations done by NGOs across the country. For instance students who were placed in Vatsalya-NGO witnessed how the public healthcare system in Lucknow was plagued with apathy. They observed that the sub-centres and primary health centres are trying to survive with marginal human, technical and infrastructural resources which impact the provision of quality healthcare and force the poor to either die in despair or spend their little earnings on seeking private healthcare. The issue of children's health was studied by students placed in Samavedana. The students got an opportunity to understand the validity of the School Health programme which plays a pivotal role in preventing the occurrence of illness and child mortality. Whether it is a public health concern in Lucknow or scaling up of School Health programme in Pune, the students realized that the demand for quality healthcare can be met only through development of cross-sector partnership supported by CSR funding.

Similarly, in the absence of appropriate public transport system commuters are forced to travel in their private vehicles. Due to the lack of road discipline and infrastructure issues, there has been a rise in the number of road accidents which impacts human health and often leads to disabilities and loss of life. In this context besides recommending stricter enforcement of traffic rules and investment in creating safe infrastructure for facilitating road travel, students were able to articulate the need for preventing road accidents by transforming the mindset and attitudes of all stakeholders.

In the 21st century, India is making all efforts to make society inclusive by integrating disabled, migrant labourers, trafficked women and other communities in the larger society by undertaking various policy initiatives. In this direction students placed with Amaltas Consulting Ltd. studied the role of Assistive Technology (AT) in mainstreaming the disabled and the causative factors for the current demand-supply gap for AT in the Indian market. The assignment handled by students enabled them to understand that besides enabling the PwDs through AT, it is also a huge opportunity for startup social enterprises to set up their businesses in this area. Similarly, the issue of economically empowering migrant labourers through City Livelihood Centre under the National Urban Livelihood Mission scheme was analyzed by the students placed in AWARD in Kanpur. The gap analysis exercise undertaken by them triggered them to design a market savy action plan for the NGO to scale up the scheme's social impact. Students placed with Anyay Rahit Zindagi in Goa which works in rehabilitating trafficked women, applied their knowledge about operations management in identifying the gaps in the laundry business and proposed strategies to address the same. They realized the need for gender sensitization and solicit the support of the private sector to reintegrate trafficked women in society and facilitate them to lead a life of dignity.

The articles in this volume capture the experiences of the students who specifically worked with the most vulnerable groups of the society. They have become conscious of the fact that in a technologically advanced world, many have been left behind. Collectively the articles in the anthology indicate that the overarching objective of Agenda 2030 can be attained only with the support of socially sensitized executives and managers working in the public as well as the private sector.

We are delighted to present this publication and hope it will be of use to readers who are interested in developing inclusive businesses and cross-sector partnership models.

Section I

With the vision to 'leave no one behind', inclusion is the essential value of the 2030 agenda for sustainable development. The article in this section focuses on the skill development and employment initiatives designed by the Government of India in the past three decades. Despite notable achievements, the skilling and empowerment system for PwDs in India is defied with multiple challenges. The paper recommends sensitization of policy makers, inclusion of the differently-abled in decision-making and promotion of cross-sector partnerships to ensure economic empowerment of PwDs.

Enable & Empower: Review of Skill Development of PwDs

Abstract: *India has come a long way in its efforts to facilitate the inclusion of people with disabilities (PwDs) by instituting various policy and legal reforms. However, are the initiatives undertaken by the government to vocationally enable and economically empower PwDs making an impact? In this context, the current paper enlists the efforts undertaken by the Government of India to skill PwDs and subsequently analyses the gaps and challenges, which impede the impact of the schemes. The paper concludes that to increase the availability of skill development programmes and enable access to PwDs for the same, there is a need to design infrastructural, technological and managerial interventions. To enable and empower PwDs and make them part of the growth story of India will require the creation of a favourable environment through the provision of a right mix of political will, administrative support, and private sector involvement.*

1. Introduction

According to the International Classification of Functioning, Disability and Health (ICH), 'Disability is not just a health problem. It is a complex phenomenon, reflecting the interaction between features of a person's body and of the society in which he or she lives. Overcoming the difficulties faced by people with disabilities requires interventions to remove environmental and social barriers' (WHO, 2001). As quoted by Rawat (2016) 'disability is a public health, a human right and development issue'. The United Nations Sustainable Development Goals emphasizes on ending poverty and ensuring economic development opportunities for all including the disabled.

In India as per Census 2011, out of the total disabled persons in India, only 36 per cent were employed from which 47 per cent were males and 23 per cent were females. Further, 46 per cent of PwDs in the economically productive age between 15 to 59 years were unemployed. About 85 to 90 per cent of those employed were engaged in the informal/unorganized sector (Ministry of Statistics and Programme Implementation [MoSPI], 2016). As per Ministry of Social Justice and Empowerment (MSJE), 2015 about 1.34 crore PwDs fall in the employable age group of 15 to 59 years. Of these about 99 lakh PwDs are either unemployed or work as marginal workers.

The 76th round of National Sample Survey 2018 highlights that the labour force participation rate of the PwDs aged 15 years and above was barely 22.8 per cent. The survey also indicated

the poor educational status of the disabled. Only 19.3 per cent of the disabled had attained education beyond the secondary level (The Economic Times, 2019). Public spending on social programmes for persons with disabilities as a percentage of GDP in 2014 was 0.01 per cent as compared to the global average of 1.34 per cent (OECD & Development Pathways as cited by Department of Economic and Social Affairs, 2018).

Lack of education and vocational training, coupled with lack of availability and access to disabled-friendly transport services, absence of accessible infrastructure and assistive devices at workplaces have pushed a large section of the disabled into the vicious circle of poverty.

Skilling plays a key role in the confidence building and empowerment of the disabled. Lack of inclusion in the ambit of skill development for PwDs forces a huge population in the working-age group to a lifetime of unemployment or marginal employment (Kett, 2012). Thus, it was essential to address the dearth of skilling and vocational training opportunities for the disabled in the country. Hence, to create an enabling environment for the disabled to seek skill development opportunities, various efforts were taken at the policy level.

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2. Policy Efforts for Skilling

Since 2006, the skilling of PwDs has been one of the most important areas covered in national policies. For instance, the National Policy for Persons with Disabilities, 2006 directed technical institutes for skill enhancement to admit PwDs against the specified quotas. To facilitate wage employment in the private sector the policy advocated setting up vocational rehabilitation and development centers. To promote job opportunities for the skilled PwDs three per cent quota was reserved in the government establishments and Public Sector Undertakings (PSUs). While the policy made provisions for the reservation of

seats for skilling PwDs in existing technical institutes and employment in PSUs, it did not lay any concrete provisions for skilling the disabled.

The gaps in the National Policy for PwDs, 2006 were addressed by the National Skill Development Policy, 2009. Specifically, with regards to skilling the PwDs the policy aimed to provide skill trainings and vocational adjustment trainings to suit their abilities and sustain at a workplace. To access training facilities, it also made provisions for accommodation and designing disabled-friendly buildings. To scale up the reach, the policy aimed to double the number of Vocational Rehabilitation Centres in the 11th Five-Year Plan (2007-12). The clause for promoting vocational trainings by linking it to appropriate employment opportunities for the PwDs was incorporated.

To scale up its reach, the MSJE through the National Institute of Mentally Handicapped, National Institute for the Orthopedically Handicapped, Institute for Physically Handicapped, National Institute for the Hearing Handicapped, National Handicapped Finance and Development Corporation organized short term trainings for persons with disabilities (Msde.gov.in, 2009). To strengthen the skilling efforts for PwDs, it was proposed to identify ability appropriate courses, layout curriculums, set up a certification mechanism and monitor the entire process. Thus in alignment with the National Skill Development Corporation (NSDC), Skill Council for Persons with Disability was set up in 2015.

National Policy for Skill Development and Entrepreneurship incepted the Skill Council for Persons with Disability (SCPwD) to mainstream PwDs. The skill council has developed expository containing information on the trainings needs for PwDs, model-training curriculum, and the utility of the training tools i.e. assistive tools, appliances or software required to achieve the expected outcomes. National Occupational Standards for jobs in the area of agriculture, construction, electronics, beauty &

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wellness and other areas have been mapped to abilities of differently abled. All the skill trainings are conducted at accredited training centers (Nsdcindia.org, 2016).

The skill council has linkages with the Pradhan Mantri Kaushal Vikas Yojana (PMKVY), Pradhan Mantri Kaushal Kendra, Udaan, and other skilling schemes initiated by the government. It also provides funding support to the training partners and offers skill loans to students (Nsdcindia.org, n.d.). To further promote the skill development and employment opportunities for PwDs in both government and private sectors the Right of Persons with Disabilities Act (RPwD), 2016 was formulated. The Act mandates the central and state government to formulate appropriate training schemes suitable to cater to the needs of both physically and intellectually disabled people. The Act has made provisions for market linkage, microcredits, and loans to promote self-employment, entrepreneurship, track skilling & employment data and create a grievance redressal mechanism to resolve grievances related to non-adherence of the RPwD Act, 2016.

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Besides the above measures, the Ministry of Labour and Employment had set up 21 Vocational Rehabilitation Centres (VRCs) for the handicapped at pan India level. At the VRCs, physical & psychological capabilities, aptitude, personality traits, psychomotor dexterity, degree of disability and functional capacities of the beneficiaries are assessed to unfold their potential. Job capabilities of PwDs are tested for multiple trades sanctioned under VRC's programmes and accordingly, the skill training workshops are designed. Besides, customized trainings, on-the-job trainings, and mentorship support is also offered to make them job-ready (Ministry of Labour and Employment [MLE], 2020).

In addition to the above initiatives, more than 10,000 ITIs and more than 1000 Employment Exchanges have also been set up for skilling the PwDs. National institutes such as Ali Yavar Jung

National Institute for the Hearing Handicapped (AJNIHH), Pandit Deen Dayal Upadhyaya Institute for Physically Handicapped (IPH), New Delhi, National Institute of Mentally Handicapped (NIMH), Secunderabad, National Institute for Empowerment of Persons with Multiple Disabilities (NIEPMD), Chennai have been established across the country (Disabilityaffairs.gov.in, 2015).

Availing skill training requires some amount of investment on the part of the beneficiary and hence in 2015, DEPwD launched the Scheme of Financial Assistance for Skill Training of Persons with Disabilities. The scheme provides monetary assistance to PwDs have disability above 40 per cent and promotes disabled women's access to training by reserving 30 per cent seats in training institutions recognized by DEPwD (MSJE, 2015).

2.1. Need for National Action Plan (NAP)

Despite the multiple efforts taken by the government to skill the disabled, the differently abled remained one of the poorest segments of society. The trainings offered lacked quality and were low on employability. The curriculum offered by various institutions was not standardized which influenced the assessment of skills of PwDs. Limited infrastructure and accessibility issues hindered the penetration of schemes in rural areas. This resulted in a huge demand-supply gap for skill training of the disabled (Disabilityaffairs.gov.in, 2015).

As there were gaps in the existing skill development efforts the need for market-oriented training curriculum, technological intervention, employment linked vocational trainings, and cross-sector participation was felt. Thus the National Action Plan (NAP) for skill training of PwDs was introduced in 2016-17 under Scheme for Implementation of Rights of Persons with Disabilities Act, 2016 (SIPDA). Under NAP, a Project Monitoring Unit (PMU) was set up for conducting training needs assessment, content generation, monitoring, certification, bringing in technology and networking with employers. To develop cross-sector partnerships

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and improvise the training quality, collaborations with private companies, NGOs, and VRCs were proposed. To create a standardized training syllabus and certification mechanism for vocational training providers (VTP), the Rehabilitation Council of India (RCI) was recommended to work in close consultation with the Sector Skill Council for PwDs and national institutes of DEPwD. State Governments were alerted to provide infrastructure and resource support for the clusters of VTP was sought from the respective. NAP aimed to train 500 PwDs by setting up 200 VTP clusters in the first year and targeted to increase the reach and capacity every year. 30 per cent seats were reserved for women candidates (Disabilityaffairs.gov.in, 2015).

2.2. Promoting Inclusion: Assistive Technology

As the disabled are excluded from education and skilling due to lack of access to technology the scheme for Assistance to Disabled Persons for Purchase/Fitting of Aids and Appliances has been in operation since 1981 (Disabilityaffairs.gov.in, 2018). Assistive technology devices help the PwDs to participate in learning, skilling, handling various tasks, reducing barriers, and promoting accessibility with considerable ease and efficiency. For instance, mobility aids such as walkers; infrastructure modifications such as introducing ramps or lifts; augmentative communication devices such as Braille or speech output device; prosthetics and orthotics such as replacement of body parts; audiotapes or pagers for people with cognitive limitations; hearing and visual aids; computer access aids such as modified keyboards, touch screens; environmental controls and so on (Thenationaltrust.gov.in, 2019). Ease of accessibility facilitates consistency to undergo vocational training and become economically independent. As affordability and accessibility to availing assistive technology posed a major threat to the development of PwDs, the Scheme of Assistance to Disabled Persons for Purchase/Fitting of Aids/Appliances (ADIP) was introduced in 2005. The scheme facilitates the purchase of specified assistive devices at five percent concessional GST rates (MSJE, 2005; Press Information

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Bureau, 2017). The National Trust established under MSJE has developed a capacity development center offering simulation facilities for the use of assistive technology. It also acts as a reference center to disburse information on assistive technology (Thenationaltrust.gov.in, 2019).

3. Employment initiatives for PwD

To execute the commitments of the RPwD Act, 2016 in the area of promoting employment of the PwDs four per cent seats are reserved in government services. The reservations are provided for the visually impaired, hearing impaired, and physically disabled. PwDs are given age relaxation of up to 10 years for being recruited at government positions. The Ministry of Petroleum and Natural Gas has reserved 7.5 per cent of all types of dealership agencies of public sector oil companies for persons with physical disabilities (Enabled, 2011).

To promote self-employment, the National Handicapped Finance and Development Corporation (NHFDC) provides loans to PwDs. Different loan packages are offered for setting up a small business, agriculture and allied activities, purchase of equipment or vehicles, setting up an industrial unit, and so on (Swavlamban, 2018).

To facilitate skilling and employment of PwDs, NGOs too play an important role as implementing partners. NGOs focusing on vocational training and skill development are offered financial support and provided linkages of holistic development of the disabled. Under a micro-credit scheme loan up to Rs. 5 lakhs to NGOs and Rs. 25,000/- per beneficiary at the rate of 5 per cent per annum. The scheme is implemented via NGOs preferably working for the cause of PwDs. The application for microcredit is to be submitted through the State Channelizing Agency (SCA) (Swavlamban, 2018).

4. Analysis

The discussion in the preceding section documents efforts taken by the central and state government for skilling and economically empowering the PwDs.

Despite regularly upgrading the interventions for PwDs, its reach has always been an area of concern. The primary reason for the same being lack of availability of authentic data. The Census 2011 data has failed to cover the entire disabled population in India, resulting in misleading figures. The last country-level survey on PwDs was conducted by NSSO way back in 2002, this data has not been upgraded (Niti Aayog, 2018). Identification of the disabled has been a challenge due to the associated social stigma in Indian society. Consequentially, a large

section of PwDs is left outside the coverage of government programmes. It will be prudent on the part of the government to adopt an expansive approach in Census 2021 to ensure appropriate data collation and maintain data accuracy about PwDs.

A large section of the disabled and their families are unaware of their rights and availability of schemes. For instance, as per RPwD Act, 2016 the PwDs require a Disability Certificate or a Unique Disability ID Card (UDID) to access government benefits. Nevertheless, National Sample Survey, 2018, indicates that only 28.8 per cent disabled had a certificate of disability. This limits their chances of skill development and economic empowerment. This renders them more vulnerable as they have to lead a life with perpetual marginalization and victimhood (Modi, 2015). In this context, it is necessary to engage NGOs at pan India level to promote the information in remote areas as well as facilitate the process of simplifying and processing the Disability Certificates.

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In a technology-enabled world, there are various assistive devices available to facilitate the PwDs to be independent, skilled and earn their livelihood. In this context, efforts have been made by the government under the ADIP scheme to organize prosthetics distribution camps. According to Sharma & Priya, 2020, the free prosthetics distribution camps certainly helped the PWDs to avail assistive aids and devices to be self-reliant and independent. However, their experience at the camps was unpleasant. The locations chosen for organizing such camps were often inaccessible by the PwDs. Additionally, due to the absence of data about the expected number of visitors, the camps were mismanaged, had poor hygiene and sanitation facilities, and long waiting periods causing inconveniences to the beneficiaries. A large number of visitors at the camps left the service providers overwhelmed and inadequate to cater to the requirements of the beneficiaries. They ill-treated the beneficiaries at the camps. The camps modeled the “welfare/charity” attitudes in their

functioning and delivery of services. Finally, the quality of assistive devices distributed was also poor. Thus, insensitive nature of service providers, low quality & ill-fitting aids and the absence of training to use prosthetics raised a series of questions about the state of rehabilitation services in India.

To enable the PwDs to lead a life of dignity and independence parental support plays a key role. Bhatnagar as cited by Tripathy (2019) highlights that lack of confidence among the parents to skill their disabled child has hindered the enrollment of PwDs for skill trainings.

The National Action Plan launched in 2016-17 acted as a major step towards the standardization of skill development by engaging NGOs and corporates. Data highlights that by 2018, 258 training partners (TP) were empaneled under NAP of which 90 per cent were NGOs. At these 258 TPs, 75,640 PwDs were trained (Murthy, 2018). Besides public sector undertakings also contributed substantially to vocational training of PwDs (Disabilityaffairs.gov.in, 2015) But, according to Bhatnagar as cited in Tripathy (2019), post-enrollment, absenteeism has been a major challenge as trainings are provided free of cost resulting in learning gaps affecting the post-training process. The vocational courses designed for PwDs often fail to cover courses on information technology (IT), thus despite available vacancies in companies, they do not make them a perfect fit (National Centre for Promotion of Employment for Disabled People [NCPEDP] & Oxfam India, 2019). Further, identifying placement opportunities for skilled PwDs is a major problem. For instance, the vocational centers do not guarantee placement and only have access to jobs in the lowest rung (NCPEDP & Oxfam India, 2019). In the job market, the employment opportunities were less and those available did not consider the abilities of the disabled as strength. For instance, although placement companies listed jobs for PwDs at job fairs, the jobs offered were not practical due to limitations such as the need for relocating. Their experiences at the job

The vocational courses designed for PwDs often fail to cover courses on information technology (IT), thus despite available vacancies in companies, they do not make them a perfect fit. Additionally, in the job market, the employment opportunities were less and those available did not consider the abilities of the disabled as strength.

interviews are often humiliating as the interviewers largely focus on their disabilities instead of their abilities (Sharma & Priya, 2020). Job fairs are largely held via a collaborative effort of disability NGOs and corporates, the geographical areas where such collaborations are not possible, the PwDs are not able to access the possible employment opportunities. To address this, wherever possible, corporates should consider providing telecommuting opportunities. Self-employment of PwDs should be encouraged through various schemes like NHFDC, Divyangjan Swavalamban Yojana, and financial assistance under National Fund for PWDs. The ventures set up by PwDs should be supported by large corporates through their eco-system. For instance, a pick-up and drop bike service-'Maa Ula' has been set up in 2015 in Chennai is entirely managed by PwDs (The Hindu, 2016; Apurva, 2018).

The VRCs where a large number of PwDs are trained often have obsolete data that does not give a scenario of the skillset of the PwDs trained. Thus companies willing to employ PwDs, have no way to source reliable data (NCPEDP & Oxfam India, 2019). To trace skilled PwDs, a centralized tracking system linking VRCs, national institutes, ITIs, VTPs, and other training institutes should be created under SCPwD. The data shall act as a concrete base for decision making by the employers while creating their staffing pattern in both government and private sectors.

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Regardless of the provision of a four per cent reservation quota for employing persons with benchmark disabilities in Government establishments, the same has not been implemented effectively. On the other hand, their selection rate at private firms' remains low, as efficiency is the primary criteria assessed during the interview process (National Workshop for PwD, 2018). Chances of economic rehabilitation of the disabled through wage employment are remote due to reasons such as profit-oriented, consumeristic, and shrinking job market. Moreover, the open competition for the few left out positions

largely reduces the chances of PwDs occupying a spot (Bhanushali, 2016). Exclusion of the disabled from the job market can also be seen through the employment situation in India, as the gap between the employment of PwDs and that of the non-disabled people has been widening (Dalal 2010). To improvise the situation, social media should be utilized to highlight case studies about the abilities and success stories of the differently abled. It is a promising way to create much-needed awareness. It influences communities, corporates, families, and the disabled themselves to become independent.

Inappropriate and untimely utilization of funds has hindered the upliftment of PwDs (Niti Aayog, 2018). According to the Seventh Report of the Standing Committee on Social Justice and Empowerment (2019-20), DEPwD was not able to utilize the sanctioned budget in the year 2019-20. 40 per cent of the budgetary allocation was left unspent until the last quarter. Imposition of election commission code in the first quarter, the overhaul of skill training under NAP, inadequate proposals from State Governments, non-receipt of budget Utilization Certificates were the reasons cited for the inconsistent expenditure. Financial irregularities despite the availability of funds is a testimony to the poor commitment, lack of manpower, poor planning, and mismanagement at DEPwD. This is a major loophole in the implementation of initiatives for PwDs.

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The gaps in the government schemes for skilling and empowering the PwDs to a certain extent have been addressed by the NGOs and hence in the National Action Plan for PwDs, 90 per cent of training partners have been NGOs. There is some pioneering work been undertaken by the NGOs in various parts of India have been studied by MBA interns from the School of Business Management, NMIMS for instance at Vikalp Foundation located in Gaya, Bihar technical and agro-based vocational trainings for promoting sustainable livelihood among the marginalized rural community is undertaken. The Foundation also aids the disabled to avail Disability Certificates and assist the disabled to apply for

various schemes. Similarly, Asha Deep Foundation, in Chennai, Tamil Nadu, enrolls youth with locomotor disabilities in its Youth Employability Programme. Through the programme, the organization builds the capacities of the youth to become job-ready. In Gujarat, Blind People's Association (BPA) caters to youth having all kinds of disabilities. They are provided with quality education, skill development, and employment opportunities. They engage differently abled students with the local ITI for vocational trainings after assessing their interests and abilities. Post-training impact assessment is carried out to map their progress and challenges. As there is a need of a think tank to feed information and advocate policy changes, Amaltas Consulting Pvt. Ltd. based in Delhi, undertakes studies to assess the situation of the disabled in the country. In 2019, the organization examined the status of Assistive Technologies in India.

Hence, it can be inferred from the above discussion that despite the efforts taken by the government and supported by the NGOs since India's independence for promoting inclusion there is still a long way to go. The 2030 Agenda pledges to 'leave no one behind', including PwDs, it covers seven targets and 11 indicators explicitly referring to the disabled, covering access to education and employment, their inclusion and empowerment, through accessible transport, accessible public and green spaces, and building the capacity of countries to disaggregate data by disability (Department of Economic and Social Affairs, 2018). For achieving the 2030 agenda collaborative, data-driven, sustained initiatives are required. Hence, DEPwD should adopt a collective approach while laying out the schemes and initiatives for PwDs. It should explicitly mention the kind of support expected from the private sector, NGOs and the State Governments to ensure the sustainability of the designed initiatives. The existing grievance redressal system under the RPwD Act, 2016 for the PwDs should be strengthened. The focus should be laid on effective fund utilization by implementing strict monitoring mechanisms to ensure maximum benefits for the beneficiaries.

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5. Conclusion

A large section of the working-age disabled population is either non-workers or marginal workers. Despite various policy and programmatic efforts for skilling and economically empowering the PwDs a very small percentage of the disabled in India are employed and of those employed about 85 to 90 per cent are engaged in the informal sector. The reason for the same being cultural, infrastructural, technological and managerial barriers coupled with a lack of societal and political will. To integrate them in the mainstream calls for fostering attitudinal change in the larger society about PwDs and their capabilities. Hence, it is important to create a conducive social and technological environment for enabling the PwDs to develop their vocational skills and promote their participation in the economic growth of India. This can happen only through the development of cross-sector partnerships.

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Section II

This section comprises of four articles focusing on Good Health and Well-being (SDG 3). The articles critically analyzes the factors for the poor access to assistive technology designed for the handicapped; barriers to access quality healthcare by the poor; evaluation of school health programme, and barriers to road safety in urban areas.

Situational Analysis of Assistive Technology for the Disabled in India

Abstract: *Persons with Disabilities (PwD) in developing countries are often alienated, neglected, and pushed into poverty. In India, it is estimated that 2.2 per cent of the country's population has a disability and only a handful of them have access to 'Assistive Technology'(AT) which aids in increasing, maintaining, or improving the functional capabilities of PwDs.*

The current paper maps the status of the disabled population in India, causative factors for increased instances of disability, and the role of assistive devices to aid independent living. Both Government of India and several private sector organizations are striving to improve the access and availability of AT to the disabled. Despite this effort, the disabled face challenges and are still marginalized. To examine the status of AT in India and identify factors that limit access and availability of AT, Amaltas Consulting Pvt. Ltd. conducted a research study. Based on the findings of the study the authors were assigned with the task of drafting an executive summary. This allowed the authors to reflect on the problems affecting the demand and supply scenario of AT in India and its impact on the lives of the disabled. The paper provides a few recommendations indicating a need for partnership between the government and NGOs to work collaboratively towards the development, advancement, and adaptation of assistive technology to uplift the disabled population. It also emphasizes that, in the absence of a conducive environment for accessing AT, disability-inclusive sustainable societies cannot be created. The paper is an outcome of Ms. Riya Bansal's, Ms. Shruti Punn's and Ms. Ayushi Jain's 'We Care: Civic Engagement' internship with Amaltas Consulting in February 2020.

1. Introduction

The International Classification of Functioning, Disability, and Health (ICF) coined disability as an umbrella term for body or mind impairments that limit the person to perform certain activities and restricts participation with the rest of the world (WHO, 2002). Globally, over a billion people are estimated to live with some form of disability which corresponds to about 15 per cent population (WHO, 2018). As per the UN Development Program (UNDP), 80 per cent of people with disabilities (PwD) live in developing nations with higher prevalence among the most miserable people as they lack access to appropriate living conditions, proper sanitation, education facilities, and healthy nutrition. They are generally oppressed and stigmatized in their communities (WHO & World Bank, 2011).

1.1. Disability in India:

In India, the number of PwDs is estimated to be more than 26 million i.e. 2.2 per cent of the country's population. Among the disabled, 2.4 per cent are male and 1.9 per cent are female, with a majority of them dwelling in the rural areas (National Statistical Office [NSO], 2019). As per the Census of India 2011, 19 per cent had the disability of vision, hearing 19 per cent, speech 7 per cent and 20 per cent had a movement-related disability. While 6 per cent were mentally retarded, 3 per cent had a mental illness. 8 per cent of all the disabled had multiple disabilities and 18 per cent had a blood disorder or neurological condition (Ministry of Statistic & Programme Implementation [MoSPI], 2016). It is observed that the onset of the majority of disabilities is in the age group of 15-59 years (NSO, 2019) with increasing prevalence among the aging population in the country (Kulkarni et al., 2018).

The widespread urbanization, lifestyle changes, increased stress, risky health habits, and substance abuse among the working-age group cause onset of various diseases (Banerjee et al., 2019). Chronic morbidities like diabetes, cardiovascular diseases, and mental illness increase after the age of 40 often leading to disabilities. Higher rates of disabilities are therefore visible among the elderly, reflecting the accumulation of health risks across a lifespan of illness, injury, and chronic diseases (WHO & World Bank, 2011). India Human Development Survey-I (2018), indicates that about 17.93 per cent of the elderly men and 26.21 per cent of the elderly women in the country experience either mild or severe disability in terms of Activities of Daily Living (ADL). To aid them to live an independent and productive life, there are several devices, technological equipment, and services which help them in performing their daily activities. The majority of these devices are categorized as assistive technologies.

India Human Development Survey-I (2018), indicates that about 17.93 per cent of the elderly men and 26.21 per cent of the elderly women in the country experience either mild or severe disability in terms of Activities of Daily Living (ADL).

Older people wish to remain in their own homes but are faced with gradual deterioration in their abilities. Most of the time they are fit enough to retain their independence but, sometimes they

need help in their activities of daily living (ADL), such as bathing, climbing stairs, taking medicines, wearing clothes (Kumar et al., 2009). For these individuals, the use of assistive technology makes a difference between retaining their independent quality of life and self-respect.

1.2. Assistive Technologies (AT):

"Assistive devices and technologies aid in enhancing an individual's functioning and independence to facilitate participation and enhance overall well-being. They can also help prevent impairments and secondary health conditions. Examples of assistive devices and technologies include wheelchairs, prostheses, hearings aids, visual aids, and specialized computer software and hardware that increase mobility, hearing, vision, or communication capacities" (WHO, 2017).

Out of the 15 per cent population with disabilities, 2 - 4 per cent encounter significant difficulties in functioning independently. WHO estimates that by 2030 over two billion people will be dependent on their caregivers for performing trivial tasks to live a holistic life. Many of these people will require AT. Through assistive products, equipment, systems, and related services, the need for full time-healthcare and support providers, such as care-givers is reduced substantially. In the absence of AT, disabled people are often alienated, neglected, and pushed into poverty, thus increasing the impact of the disease and disability on the individual, his family, and the community (Tangcharoensathien et al., 2018).

According to WHO (2018), due to high cost and lack of awareness, only 10 per cent of those who would benefit from AT have access to them. Further, in many low-income and middle-income countries, only 5 to 15 per cent of the disabled have access to assistive devices. Limited governmental support, weak legislation, inadequate funding, lack of trained teachers and support personnel often create hindrance in accessing AT. The

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demand for assistive devices in the country is scarce and fragmented due to the non-existence of a formal market and broken industry value-chain. Demand is restricted to urban hubs due to a lack of awareness among the potential benefactors and healthcare providers in rural areas. Stigmatization has also been associated with the usage of AT.

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The Indian Parliament, through the Right to Persons with Disabilities (RPWD) Act, 2016 empowers disabled people with education, health, social security, rehabilitation, sports, and recreation. The Act extended the number of disabilities covered from 7 to 21 to include rare conditions such as cerebral palsy and muscular dystrophy (The Rights of PwDs Act, 2016). The Ministry of Social Justice and Empowerment, Govt. of India has launched a flagship campaign "Accessible India" under the Scheme for Implementation of the Rights of Persons with Disabilities Act 2016 (SIDPA) to raise awareness and conduct public-place accessibility audits for the disabled (Disabilityaffairs.gov.in, n.d.). Further to build rehabilitation services, create awareness, and train medical professionals in the underserved parts of the country, the Ministry assists in setting up District Disability Rehabilitation Centres (DDRCs). To meet the accessibility needs of the disabled, a web-portal was also initiated in 2014 in collaboration with Technology Information, Forecasting, and Assessment Council (TIFAC) an autonomous body of the Department of Science and Technology.

Through the 'Divyangjan Swavalamban Yojana Scheme for PWD,' the Department aims to assist the disabled people financially in purchasing/customizing aids and appliances by offering concessional loans for their overall empowerment (Nhfdc.nic.in, n.d.). Scheme for Assistance to Disabled Persons for Purchase/Fitting of Aids and Appliances (ADIP Scheme) has also been launched to assist the disabled person in procuring aids and appliances and provide grant-in aids to the implementing agencies for manufacturing, purchase, and distribution of AT (Niepmd.tn.nic.in, n.d.).

Several companies and NGOs are working towards improving access to assistive devices by developing low cost affordable AT and raising awareness about its availability among prospective users. BIRAC, a non-profit Tata Trusts funded start-up incubator, Social Alpha and Information Technology services company Mphasis joined hands to support assistive tech start-ups that are helping PwDs in India (Mphasis.com, 2020). Mumbai based Barrier Brake, an Accessibility and Assistive Technology firm is committed towards the issue (Barrierbreak.com, n.d.). MindTree Foundation is also taking steps in the same direction. The list of technology-based start-ups with a vision for the differently-abled includes KickStart, Oswald Foundation, RiseLegs, Inclov, Innovision, and several others. Amaltas Consulting is one such private limited company which has extensively researched on AT, and has analysed the issue in greater depth.

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2. About Amaltas Consulting

Amaltas Consulting Pvt. Ltd. registered under the Companies Act, 2013 was established in December 2006 for the development of intellectual capital and innovative approaches in development. The company works in the areas of health, social development, social contracting, the inclusion of sexual minorities, water & sanitation. It collaborates with corporates and non-government organizations (NGOs) to establish a network for development and providing strategies for growth in the future. It has worked with Bill and Melinda Gates, UN bodies, and the World Bank (Amaltas Consulting, n.d.). The organization offers management advisory, proposal development, documentation, and evaluation services undertake research, and conducts analytical reviews for international and country-level health projects (Amaltas.asia, n.d.).

Amaltas Consulting has a sister organization called Amrit Foundation of India registered under the Societies Act, 1860 that helps in the development and betterment of the disabled with a specific focus on children with intellectual and developmental challenges (Amritfoundationofindia.in, 2019).

While continuously working towards expanding its scope, Amaltas Consulting initiated a research project on Assistive Technologies (AT). To examine the status of AT in India and analyse how could a potential Centre for Excellence support an effective response to the growing need of assistive technologies in India, the organization conducted a rapid review by gathering information about: a) ecosystem of AT in India, b) key players and c) research gaps in the availability of AT data. A draft research report was developed by the organization. It was decided to disseminate the report to South Asian Research Hub (SARH), Department for International Development (DFID), the Government of India, WHO, academia, and NGOs/civil society groups who could utilize the report to design initiatives for the disabled.

3. Project Focus

In the above context, the We Care interns were assigned the task of a) developing a context with regards to AT in India, b) support in the curation of relevant sections and developing summaries for each chapter of the report, and c) collating key takeaways from the different segments of the report.

4. Methodology

To achieve the assigned tasks, the interns decided to study the draft report on Assistive Technology drafted by the organization. For developing an understanding of AT secondary data was referred. Information about a) statistics and figures concerning AT, b) current situation of AT in the country, c) scope and future of AT were extracted from WHO, BMGF, and USAID reports provided by Amaltas.

To develop summaries for each chapter key pointers were identified about i) Ecosystem of AT in India, ii) Key players in the AT sector, iii) Research gaps in the availability of AT data. While drafting summaries important facts, case studies, and observations were highlighted. Each chapter included concluding remarks and key takeaways.

5. Findings

The first chapter – 'Background' examines the ongoing battle of the disabled people concerning assistive devices, primarily due to the lack of research insights and a conducive ecosystem for the same. It briefly discusses the prospective methods of developing assistive devices by leveraging expert knowledge and making efficient use of the published sources.

The second chapter – 'Ecosystem of AT in India with the identification of main players in this field' presents pieces of evidence to support the development of Assistive Technology in India through a widely recognized HAAT (Human Activity Assistive Technology) framework that describes the process of selecting an assistive technology through four components of context, human factors, activities, and engineering considerations.

The third chapter – 'Research gaps in the data collected in the context of AT in India' describes the statistical data on disability in India and factors responsible for the increase in disability. It examines the policy framework and based on the literature review presents the work undertaken by NGOs to address the needs of the disabled. It discusses the need for assistive technology devices, challenges being faced, and the funding aspect to it.

It was inferred from the analysis that the unaffordability of AT devices and disparity in demand and supply left a large section of the disabled population without appropriate assistive devices to lead an independent life.

6. Reflection

A detail-oriented approach towards the disability segment in general and assistive technology in specific helped the interns to dwell deeper and obtain a better understanding of the subject with respect to the access of the assistive devices to the disabled and its importance in helping them lead an independent life. The extensive research and analysis required in the entire project were a great means for them to get familiarized with the NGOs and the private companies involved in the development and the advancement of assistive devices.

The data from the research suggested that there is minimal awareness of assistive technology in India. Data forecasting the need for AT by a significant fraction of individuals in the country helped the interns to understand the schemes and initiatives designed to benefit the disabled. It was inferred from the analysis that the unaffordability of AT devices and disparity in demand and supply left a large section of the disabled population without appropriate assistive devices to lead an independent life. For

instance, in the case of the visually impaired, shortage of braille books and audio recordings led to the individuals creating their audio recordings or using general-purpose devices that often did not fit their personalized needs. Also, this ineffective and inefficient use of AT is a major hindrance to inclusion. It showcases the need to make concentrated efforts for ensuring availability and creating universal access to AT. Thus, the Scheme for Assistance to Disabled Persons for Purchase and Fitting of Aids/Appliances (ADIP Scheme) can help in making AT more accessible to the people which makes assistive devices available to persons with disability in families with earnings specified to below particular levels.

It was also observed that data on disability provided by the Census of India and the National Sample Survey (NSS) is limited in scope and is not comparable. Lack of data negatively impacts policy formulation. Due to inadequate policies, the need for assistive technology outweighs availability. This also hampers the accessibility and reach to the target population genuinely in need of AT. Persons of Disability Act, 1995 emphasizes education, employment, and social security for the disabled, but the implementation of the Act both in letter and spirit has been poor. Though the government is investing in research, design, and supply of assistive devices but the match between demand and supply is not enough.

From the demand side perspective of assistive technology; policymakers, care providers, and potential beneficiaries lack understanding about the usability of assistive technology and the types of devices that are available in India. Weak institutional coordination, unavailability of good quality aids, lack of funding, high cost of devices, lack of distribution network are the barriers for accessibility of assistive technology devices. In this scenario it will be difficult to achieve SDGs pertaining to Good Health and Well-being (SDG3), Quality Education for all (SDG4), Promoting Decent Work and Economic Growth for all (SDG8) as a sizable

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number of disabled population will be left out of the mainstream and this will further increase inequities and poverty levels in the society.

7. Conclusion and Recommendations

It can be concluded from the above discussion that lack of data on AT, high cost of devices, lack of distribution network, and limited government support have posed challenges in accessing assistive devices for the disabled in the current ecosystem in India.

There is a need for accurate data and supportive policies to encourage manufacturers and traders to enter the AT market. The key stakeholders should design initiatives to fill the identified gaps and improve the accessibility rate of AT to promote good health and well-being and promote the economic empowerment of the disabled. There is a need to create awareness among PwDs and their caregivers about the benefits of assistive devices. Information pertaining to disability-specific assistive aids and their utility, platforms offering AT, selling price and maintenance cost of AT along with facilities offering support services must be disbursed on various information portals in accessible formats. Better understanding should be developed regarding the size and nature of the demand-supply gap of AT among the policymakers.

Venture capitalists, social entrepreneurs, and investors should come forward to support innovators in the field of AT. For the AT market to function effectively, it is required that the applied research, translation of knowledge, manufacturing of devices, and their sales and promotions must be well connected and integrated through a common platform to address the present gaps in the distribution network. Collaboration between the government and NGOs, training for these devices post-sales, customization, design, research, and development will play an important role in increasing the reach of assistive technology.

Certain NGOs aid in the fulfillment of the demand of AT devices by building awareness, support networks of persons with various forms of disability, and educating people about the same. NGO's and corporates through their sustainability programmes are working with the Government for the economically disadvantaged disabled section of the country. Educational institutes have come forward to provide AT devices and special education to ensure inclusive learning. NGOs have also tied up with the Ministry of Finance to allocate budget and provide subsidy for AT devices. These organizations and initiatives act as an interface between the market, government, and voluntary sector towards the empowerment of persons with disabilities.

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Gap Analysis: Status of CHCs and PHCs in Lucknow

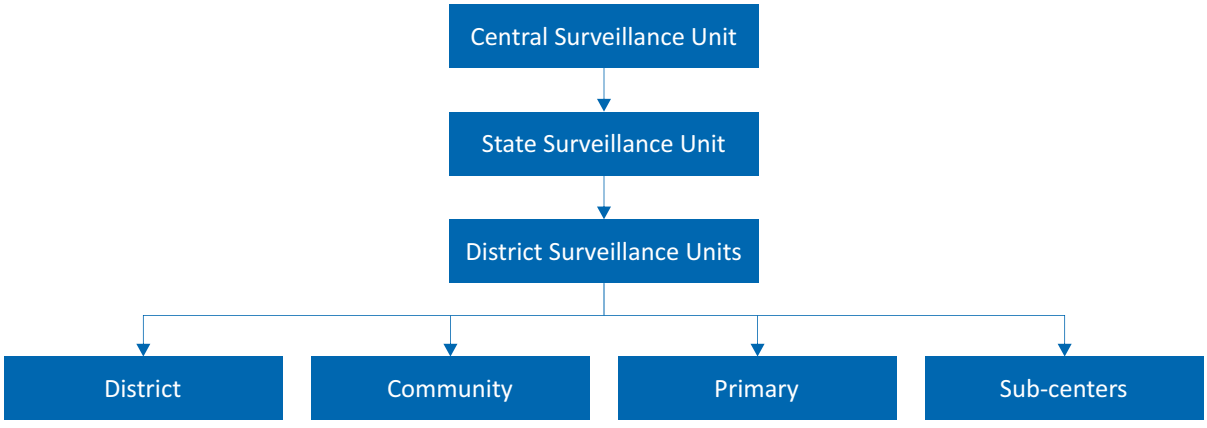
Abstract: *Public healthcare system is a fundamental building block for Indian society. As a progressive country India too has to strengthen its frail public healthcare system. To enable access and availability of medical care for the marginalized communities NGOs have played a pivotal role. The current article is based on the field research undertaken by Vatsalya- NGO working in Lucknow, Uttar Pradesh. The article describes the existing situation of primary and community health centres in Lucknow. The research reveals various infrastructural and manpower gaps at CHCs and PHCs and analyses its impact on quality of services offered. The article proposes recommendations to the existing system by increasing budgetary allocation, optimizing resources, training support and recruitment of management professionals for better management. The paper is an outcome of Mr Shivam Bhalla's 'We Care: Civic Engagement' internship with Vatsalya in February 2020.*

1. Introduction

According to the Ministry of Statistics and Programme Implementation & UN (World Population Prospects, 2019), India hosts an estimated population of 1.366 billion people, which accounts for 17.7 per cent of the world population. Effective healthcare system is vital for the development of any economy. Better standard of health is the key to human happiness and social well-being. Unfortunately, India ranks 120 out of 169 countries in the World Health Index (2019) (Orissa post, 2019). According to Niti Aayog (2019), inadequate and fragmented delivery plagues Indian healthcare system. The Indian Government spends about 1.13 per cent of GDP on health which is highly inadequate in comparison to the spending by other countries (Niti Aayog, 2019). In the absence of quality public health care at the doorstep 62 per cent of patients end up spending their money on availing private healthcare services. Consequentially they are dragged into poverty. Despite having various public healthcare schemes, the socially disadvantaged groups are helpless due to lack of availability and accessibility of quality healthcare services.

The public healthcare system is designed as a five-tier system and comprises of primary, secondary, and tertiary facilities. The sub-centres (SCs) are the most peripheral and first point of contact for the community. “Being at the lowest stage of referral pyramid they mainly provide preventive and promotive care with a basic level of curative care”. As per the Indian Public Health Standards (IPHS) one sub-centre is required for every 5000 households in plains and every 300 households in difficult terrains (Directorate General of Health Services, 2012). The public health organogram presented in Figure 1.

Figure 1: Public Health Organogram



Source: Department of Health and Family Welfare

In the rural health set-up, Primary Health Centres (PHCs) are the initial point of contact between the community and medical doctors. As per IPHS, for every population of 20,000 in hilly, tribal and desert areas or a population of 30,000 in better accessible areas, there should be a PHC. Village clinics and sub-centres refer patients to PHCs in case they are unable to deal with them (Directorate General of Health Services, 2012).

Patients who seek advanced treatments and further specialist care are referred to community health centres (CHCs). As per IPHS specification, for every population of around 80,000 – 100,000, there should be a CHC present (Directorate General of Health Services, 2012). At the tertiary level of the system, there is a fully equipped district or subdivision hospital which has advanced medical treatment facilities (Rural Health Statistics, 2015).

The total number of operational health centres in rural India comprises of 157,411 sub-centres, 24855 PHCs, 5335 CHCs (Ministry of Health and Family Welfare [MoHFW], 2019), 1024 sub-district hospitals and 755 district hospitals (Rural Health Statistics, 2015). As per Prinja et al. (2016), it is disheartening to observe that the utilisation of PHCs for antenatal care services among the public health facility in India stands only at 22 per cent. Out of the total institutional deliveries, nine per cent happen at the level of PHC, and seven per cent take place at the level of CHCs. For the total public sector spending, 41 per cent is spent on primary health care and 15 per cent on secondary healthcare.

MoHFW Report 2018-19, states that a significant number of health care centres at all levels were added post-2005. There has also been an increase of 63 per cent, 35 per cent, and 15 per cent in the number of auxiliary nurse-midwifery (ANMs), allopathic doctors at PHCs, and specialist doctors at CHCs respectively (Prinja, et al., 2016).

Despite having made significant investments in the public healthcare system, the administration faces numerous challenges. One of the critical challenges relates to the demographic composition of India's vast population. Accessibility to healthcare in rural areas which is home to more than 70 per cent of India's population is the biggest area of concern. For instance, although 84 per cent of the hospitals were located in rural areas, the number of beds in these facilities accounts for only 39 per cent of total government beds (National Health Profile, 2018). Access to healthcare becomes challenging, mainly due to the lack of infrastructure and medical staff (Wharton UPENN., 2019). As per World Health Organization's (WHO) norm, the ratio between doctors and patient should be 1:1000, sadly, India has a ratio of 1:1456, indicating a massive shortage of trained medical professionals (Goel, 2020). Shortage in the number of quality paramedical staff is even grimmer.

CHC - Lucknow

Accessibility to healthcare in rural areas which is home to more than 70 per cent of India's population is the biggest area of concern. For instance, although 84 per cent of the hospitals were located in rural areas, the number of beds in these facilities accounts for only 39 per cent of total government beds.

1.1 Health Scenario in Uttar Pradesh:

Uttar Pradesh (UP) has an estimated population of 237 million people (Populationu.com). According to an article on First Post (2018) despite its vast health system networks, there are severe shortages in health infrastructure and workforce in UP.

In 2015, one PHC catered to more than 44,000 people, exceeding the IPHS norms of 30,000 people per PHC. As of January 2018, the state had a shortfall of 31,037 sub-centres, 5,172 PHCs, and 1,293 CHCs (Firstpost, 2018). Due to the shortage of an adequate number of facilities, it becomes challenging to implement government schemes like Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH+A) programme, Rashtriya Bal Swasthya Karyakram (RBSK), Pradhan Mantri Swasthya Suraksha Yojana (PMSSY), which requires an efficient network of the public health system as a prerequisite. Besides, the high cost of private medical service further restricts the poor to access healthcare services.

To address the health-related challenges, NGOs across India have played a complementary role. They liaise between local communities and healthcare service providers. This has resulted in facilitating access and availability of health services to the poor and has enabled the capacity building of the local health workers. Consequentially, it has helped in increasing health awareness and behavioural change in the communities. In Uttar Pradesh, NGO such as India Health Action Trust, Darpan, Mamta, Vatsalya and others have played an active part in strengthening the current healthcare system. Specifically, Vatsalya has collaborated with the local and state government to strengthen the quality of health care services in rural areas.

Due to the shortage of adequate number of facilities, it becomes challenging to implement government schemes like Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH+A) programme, Rashtriya Bal Swasthya Karyakram (RBSK), Pradhan Mantri Swasthya Suraksha Yojana (PMSSY).

PHC - Lucknow

2. About Vatsalya

Vatsalya, registered under Society Registration Act, 1860 is based in Lucknow, Uttar Pradesh. The organisation was established as a "Resource Centre on Health" with the support of medical professionals in 1995 and had been contributing to the state by undertaking capacity-building measures and training programmes for the medical facilities and staff. It pioneers in working towards ensuring quality medical and health services to the marginalised and underprivileged community of rural areas. The organisation's vision is to have a gender-equal society where women and children are safe, healthy, and educated so that they can achieve their full potential and create value for themselves and society. Vatsalya has been operational in several districts of Uttar Pradesh and has field interventions in general healthcare, paediatric care and, nutrition (Vatsalya, n.d.). Since 1995, the organisation has developed its network with the communities and medical authorities of urban and rural areas in the state.

To examine and subsequently strengthen the health care facilities, in January 2020, Vatsalya conducted a survey to study the current status of the medical facilities and conduct facility gap analysis in eight CHCs and 52 PHCs of Lucknow District. Data on a) staff availability, b) service availability and c) quality of healthcare services was collected through the survey by Vatsalya's staff.

3. Project Focus

In the above context, We Care interns were assigned the following tasks a) analysing the survey data, b) conduct field visits for developing qualitative insights for supplementing the quantitative data and c) draft the survey report.

4. Methodology

Data files having survey responses had information on staffing pattern, quality of facilities at the health centres, patient profiles and feedback. Before the commencement of data analysis, data was cleaned with the help of MS Excel and three data files were created. First data file profiled the total workforce available at each centre. It had information about a) number of staff members present at each medical facility, b) designation of staff members and c) nature of employment- permanent staff/contractual Second data file contained information concerning the quality of medical services provided at each of the health centres. It had information about a) infrastructure adequacy, b) medicines and tests availability, and c) types of medical services provided.

Third data file contained information related to the patient's feedback. It had information about a) quality of care provided, b) challenges faced during treatment, c) behaviour of staff members, and d) overall satisfaction level. The data were analysed using MS Excel.

To develop insights and experience of the ground situation closely, field visits were made to 2 CHCs and 4 PHCs. These facilities were selected based on three best and worst-performing medical centres. Personal interviews were conducted with two doctors, two administrative officials, two support staff and five patients with the help of an interview guide. Through the interview data on a) workload, b) crowd management, c) work culture and ethics, d) respectful care, and e) suggestions for improvement of health centres was solicited.

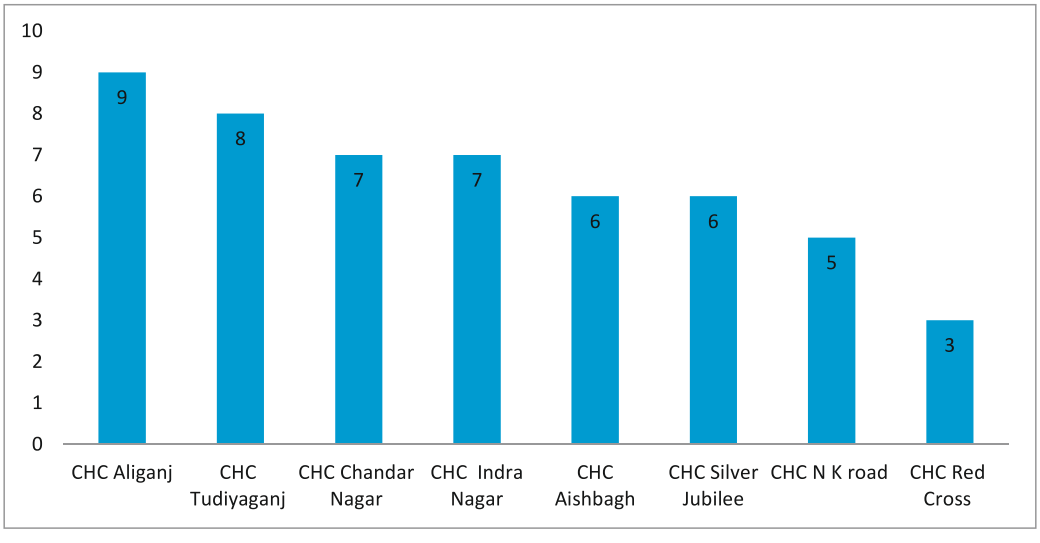
Qualitative responses were analysed with the help of the content analysis technique. Based on the qualitative data received, categories of responses were segregated based on the data points. The insights obtained from the field visit were used to strengthen the report.

5. Findings

5.1 Distribution of CHCs and PHCs:

As per revised IPHS guidelines (2012), four PHCs are linked to one CHC. To examine the distribution of 52 PHCs functioning under the eight CHCs at Lucknow a mapping exercise was carried out. Figure 2 depicts the distribution of PHCs under the CHCs.

Figure 2: Distribution of PHCs



The above graph depicts that CHC Red Cross had only three PHCs linked which was the lowest among all eight CHCs while CHC Aliganj had the maximum i.e. 9 PHCs linked. On average, each CHC was linked to six PHCs.

5.2. Workforce Requirements:

Under the National Health Mission (NHM), IPHS guidelines have been issued to improve the quality of care at the public medical facilities. Guidelines state the minimum threshold of workforce required under each professional category for CHCs and PHCs. The adherence to these guidelines by the public health facilities is vital to ensure the provision of round the clock clinical services (Directorate General of Health Services, 2012).

5.2.1. CHC – Workforce:

CHCs act as a referral centre for sub-centres and PHCs. They house advanced medical services and provide superior medical care to the community. As per IPHS guideline and further re-categorization done by Vatsalya, each CHC should have one physician, general surgeon, paediatrician, radiologist, gynaecologist, anaesthetist and dental surgeon under speciality services and two medical officers under general duty. Each CHC has to be equipped with a paramedical staff consisting of one counsellor/health educator, two lab technicians and pharmacists and 10 staff nurses. To manage the administrative matters each CHCs should have four upper-division clerks/administrative staff (registration clerk and data entry operator), two lower division clerks (accounts and administrative assistants) and six class IV employees comprising of a dresser, ward boys and driver. The survey highlights workforce shortages as presented in Figure 3 below.

Figure 3: Workforce Shortage at CHCs

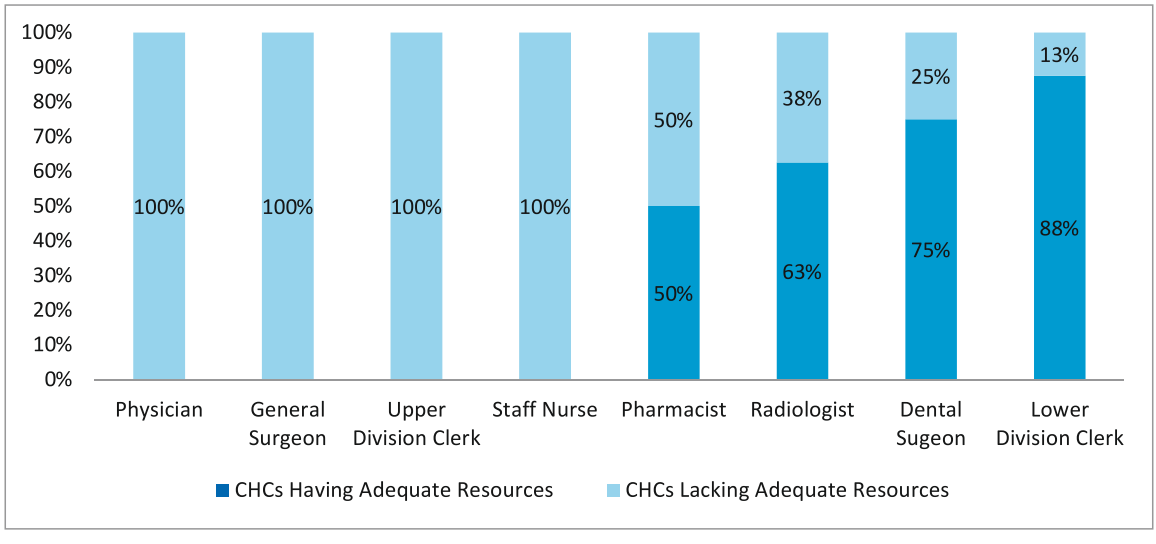


Figure 3 depicts deviations observed in terms of the prescribed number of staff in each category per CHC to the actual number of staff available at the CHCs. The data confirms that all the CHCs in the city lacked the required number of medical, paramedical and administrative staff. Data further indicate that 50 per cent of the health centres lacked pharmacists, 38 per

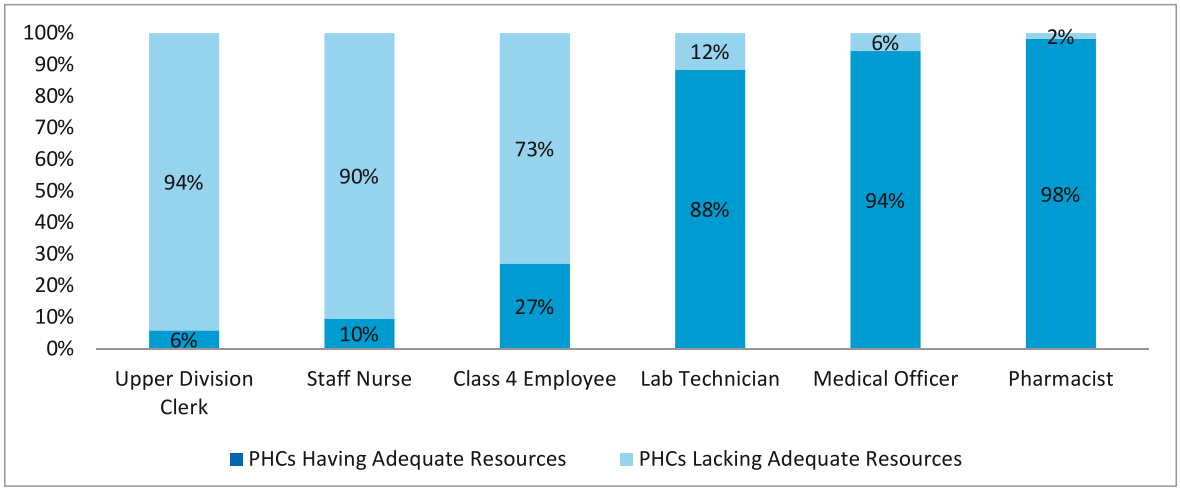
cent lacked radiologists, 25 per cent lacked dental surgeons and 13 per cent faced a shortage of lower division clerks. Medical staff present at the CHCs shared that employment at the CHCs was both permanent and contractual. Due to the paucity of manpower, the CHCs are unable to offer quality medical services.

5.2.2. PHC – Workforce:

At the community, PHCs act as the first point of contact between the doctor and the patient. These medical facilities provide general medical care to the patients and operate daily for a fixed number of hours. As per IPHS Guidelines and further re-categorization by Vatsalya, each PHC should be equipped with at least one e. medical officer, laboratory technician, pharmacist and upper-division clerk respectively. The PHC should also be manned with six staff nurses, three Class IV employees comprising of two multi-skilled workers i.e. dresser/ward boy/nursing staff and one sanitary worker cum watchman.

Figure 4 displays the workforce shortage observed in the 52 PHCs covered in the survey.

Figure 4: Workforce Shortage at PHCs



It can be inferred from Figure 4 that 73 per cent PHCs did not have an adequate number of class IV employees, impacting the sanitation and hygiene at the facilities. Ninety-four per cent PHCs did not have upper division clerk and 90 per cent facilities faced a shortage of nurses. This impacted the record-keeping and quality of care provided at the PHC. Paucity in other workforce categories was also observed as 12 per cent PHCs lacked lab technicians, 6 per cent lacked medical officers and 2 per cent lacked pharmacists.

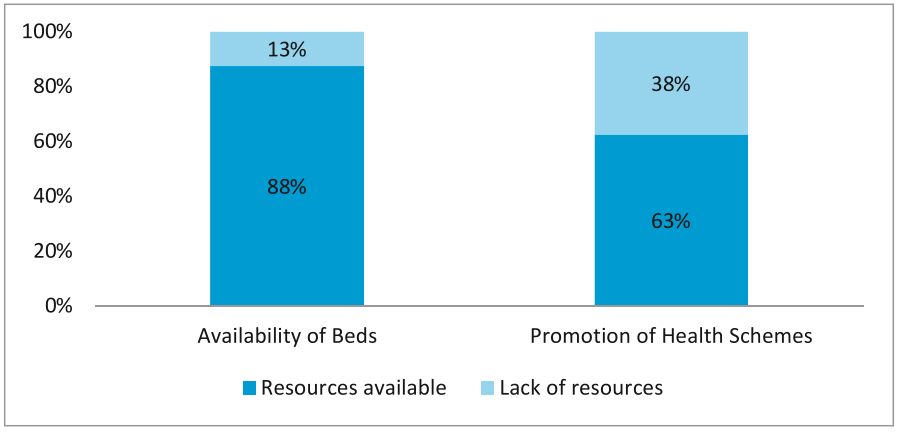
5.3. Status of Facilities:

5.3.1. CHC – Facilities:

As per IPHS guidelines, each CHC should have a minimum of 30 beds at the facility. The doctors and staff employed at the CHC should educate patients about government schemes concerning mother & child health (MCH) and healthcare services for low-income individuals.

Figure 5 depicts the status of the availability of beds and engagement of staff in disseminating information about MCH and other health schemes.

Figure 5: Availability of Beds & Promotion of Health Schemes at CHCs



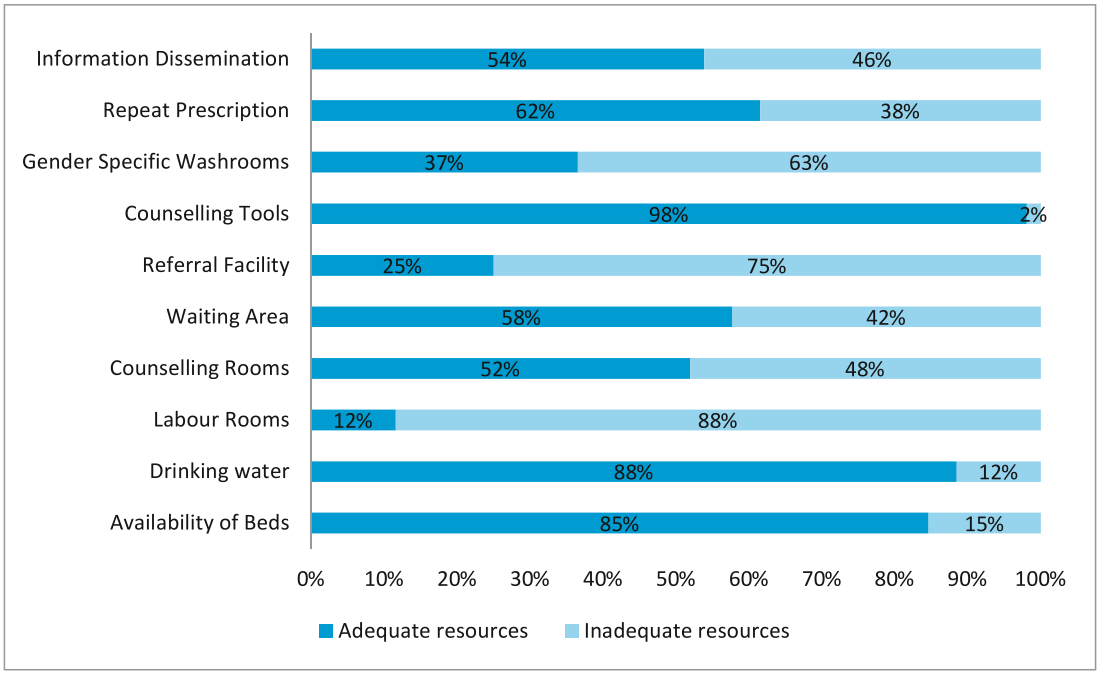
The above figure highlights that 88 per cent of the CHCs complied with the requirement of 30 beds as prescribed by the IPHS guidelines. Shortage of beds was highest at CHC Red Cross as it had only 15 beds.

The data further indicates that at 38 per cent CHCs the staff was not engaged in information dissemination about MCH and other health schemes which they were entitled to.

5.3.2 Infrastructural Facilities:

As per the revised IPHS guidelines, each PHC is required to have six beds, a labour room, waiting area, referral facility, separate washrooms for men and women, drinking water facility, counselling room and tools. The survey data reflects the status of facilities at PHCs depicted in Figure 6.

Figure 6: Status of Facilities at PHCs



As compared to the infrastructure status at CHCs, PHCs lagged on many parameters. Figure 6 indicates that 15 per cent PHCs faced a shortage of beds, 12 per cent lacked drinking water facilities, 88 per cent did not have a labour room, 48 per cent did not have a counselling room, and 42 per cent lacked waiting area. There was a shortage of referral facilities at 75 per cent facilities and 63 per cent facilities did not have gender-appropriate washrooms. Prescriptions were repeated at 38 per cent facilities. The staff at 46 per cent facilities did not educate the patients about the available health schemes. The abysmal condition of public health infrastructure has implications on the quality of healthcare services provided at the PHCs.

5.4. CHC & PHC – Mode of Counselling:

According to IPHS Guidelines (2012) counselling is primarily conducted via face to face interactions. To disseminate information about various health schemes in the area of MCH, communicable and non-communicable diseases, disability, vaccinations, and so on among beneficiaries, the PHCs are directed to distribute pamphlets, books and guidelines.

The strategies adopted for educating patients at CHCs and PHCs is depicted in Figure 7 and 8 respectively.

Figure 7
CHCs – Strategy for Educating Patients

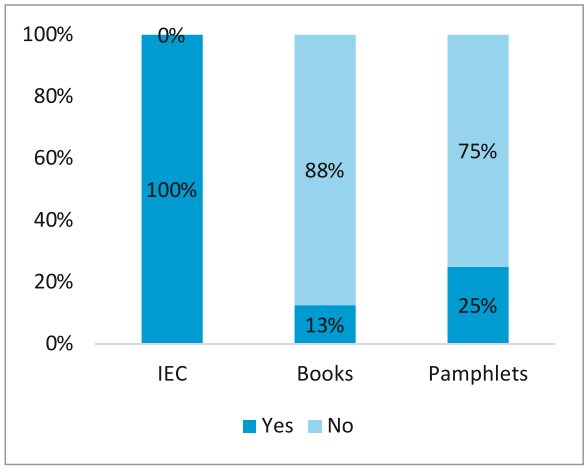
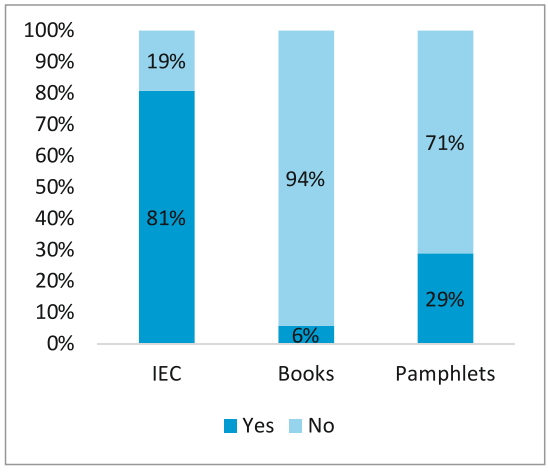
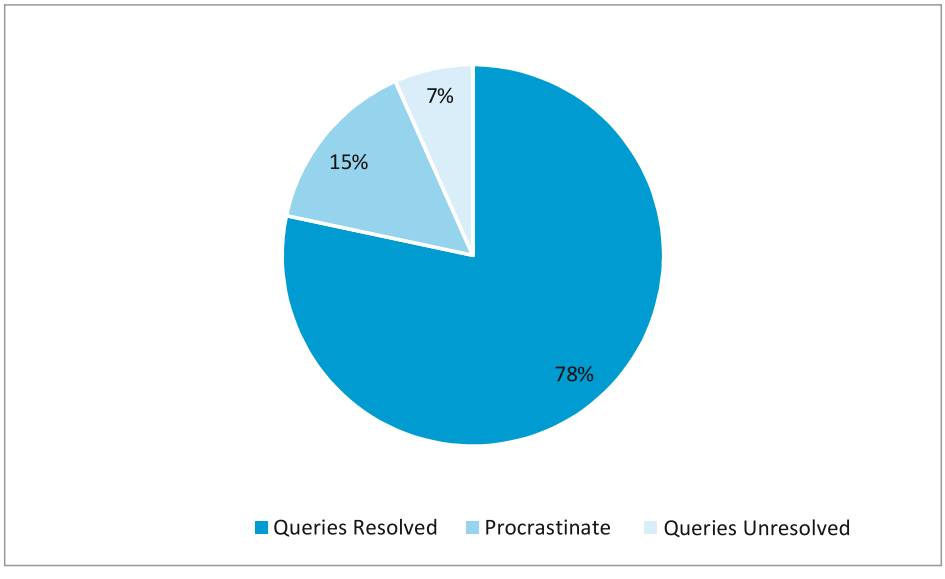


Figure 8
PHCs - Strategy for Educating Patients



Figures 7 & 8 report that all the CHCs and 81 per cent PHCs used information, education and communication (IEC) material for counselling patients. Besides, the information disseminated about health care schemes and guidelines through books and pamphlets for disseminating information was found to be unsatisfactory. The display boards at the facilities were in dual language i.e. English and Hindi.

Figure 9: Resolving Patients' Queries



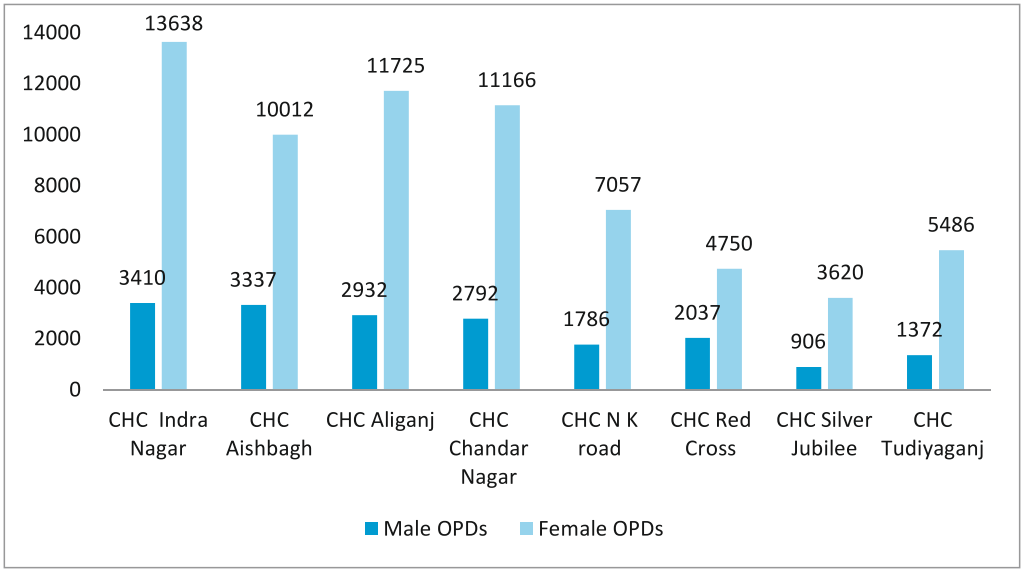
As depicted in Figure 9, it was heartening to note that the staff at 78 per cent of the facilities attempted to resolve the doubts raised by the patients, while the rest were unable to give a satisfactory response to the queries raised.

5.5: Outpatient Department (OPD) Cases:

5.5.1. CHC – OPD Cases:

As per the revised IPHS guidelines, CHCs should have OPD to provide services in the area of general, medicine, obstetrics, medicine gynaecology, paediatrics, dental and Ayush. OPD is responsible to conduct primary consultation, examination & workup, and handle emergencies. (Directorate General of Health Services, 2012). Figure 10 portrays gender-wise registration of OPD cases at each CHC.

Figure 10: Gender wise OPD cases at CHCs

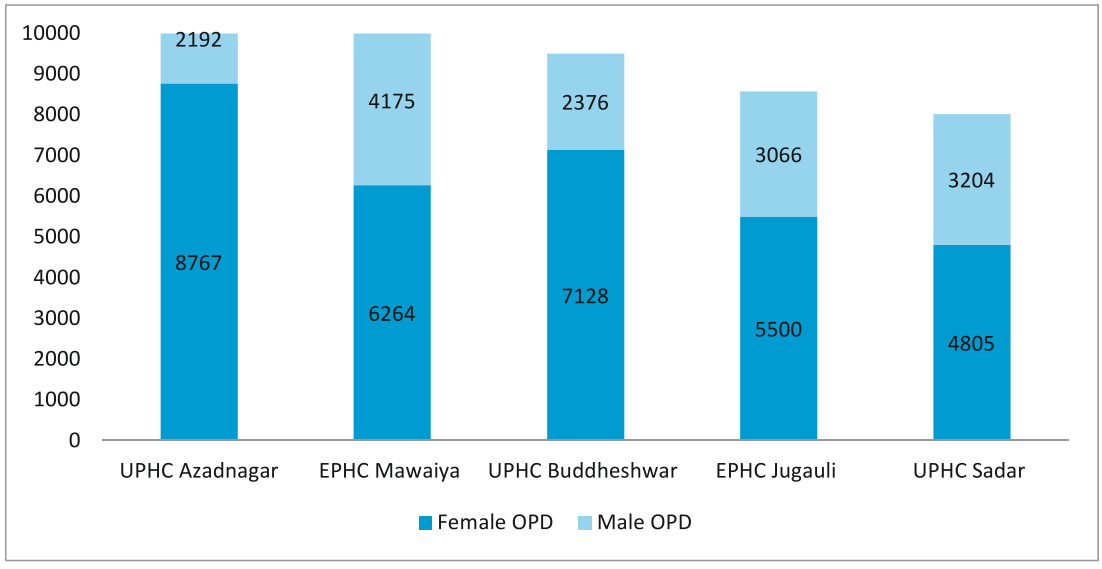


The data indicates that the total number of patients treated in the OPDs at eight CHCs in a span of three months during August to November in 2019 was close to 86,000, from which 67,000 (77%) were females and 18,000 (21%) males. CHC Indra Nagar had the highest number of OPD patient registrations in a quarter while CHC Silver Jubilee had the lowest. According to CHC staff, the presence of the district hospital in the immediate vicinity resulted in fewer footfalls at CHC Silver Jubliee.

5.5.2. PHC – OPD:

The IPHS Guidelines (2012) mandates OPD services to be operational at every PHC for six days a week with minimum OPD attendance of 40 patients per doctor per day. Figure 11 represents five PHCs having the highest number of OPD registrations in Lucknow district.

Figure 11: PHCs with Highest Number of OPDs



Between August to November, in 2019, 0.265 million OPD patients were treated collectively at 52 PHCs. From these, 63 per cent were females and 37 per cent, males. On average, in the duration mentioned above, each PHC catered to 5200 patients in the OPDs. PHC Azadnagar was the best performer having the highest number of patient registrations. Five PHCs with a maximum number of patients registered above 47,000 patients i.e. 17.7 per cent of the total number of OPDs at all the 52 facilities who availed OPD services during the quarter.

Gender wise distribution of five PHCs having the lowest number of OPD registrations in Lucknow district is displayed in Figure 12.

Figure 12: PHCs with Lowest Number of OPDs

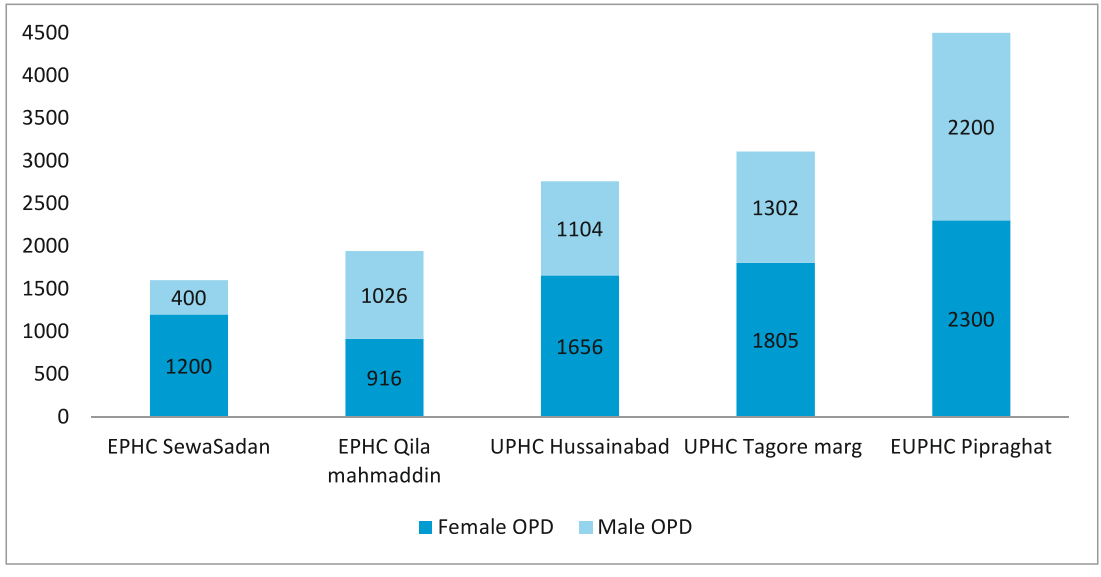


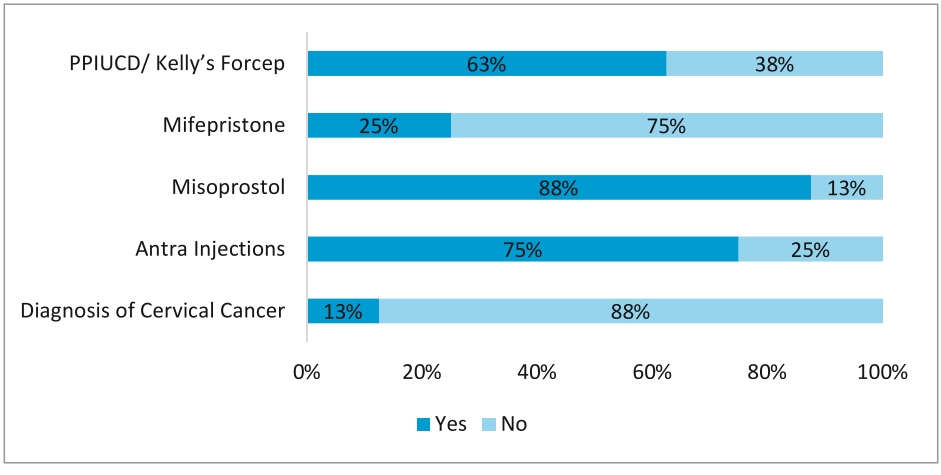
Figure 12 depicts that PHC Sewa Sadan had the lowest number of OPD registrations having only 1600 cases in a quarter. Between August to November, in 2019, the five lowest-performing PHCs cumulatively had 12,000 plus OPD cases i.e. only 4.7 per cent of the total number of OPDs. Interactions with the PHC staff indicated diversion of patients to the district hospitals as the prime reason for low registrations.

5.6 Medical Services:

5.6.1. CHC – Medical Services:

All the CHCs offered healthcare services like Abortion, Laparoscopic Sterilization, Minilap Abdominal Tubectomy (MiniLap), Comprehensive Abortion Care (CAC), Intrauterine contraceptive device (IUCD - both variants), Emergency Contraceptive Pills (ECP), Chhaya, Condoms (male), Misoprostol, Pregnancy Test Kits (PTK) and HIV Screening. During the data analysis, special focus was laid on services about abortion and contraception services at the CHCs. Figure 13 displays the availability of abortion and contraception services at CHCs.

Figure 13: CHCs: Availability of Abortion and Contraception Services

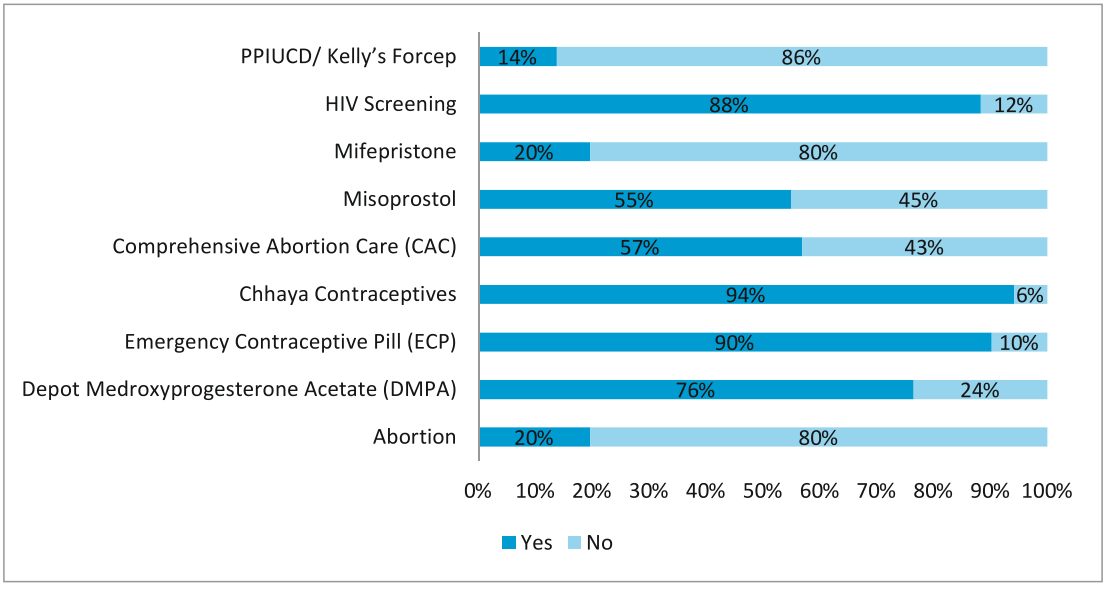


Data observes lapses in the availability of abortion and contraception related services at the CHCs. Strikingly, 3/4th of CHCs in the study lacked Mifepristone drug used to block progesterone hormone, which is essential to continue the pregnancy (Fda.gov, 2019). Moreover, 88 per cent of the facilities lacked the infrastructure for diagnosing cervical cancer. Unavailability of prescribed medical services at CHCs forces patients to incur out of pocket expenses at private healthcare facilities.

5.6.2. PHC – Medical Services:

As per IPHS Guidelines (2012), PHCs are required to offer services related to medical termination of pregnancies, provide contraceptives and conduct HIV screening. Availability of abortion and contraception services at PHCs is presented in Figure 14.

Figure 14: Availability of Abortion and Contraception Services at PHCs



It can be observed that unlike CHCs, 86 per cent PHCs faced a severe shortage of (PPIUCD) / Kelly's Forcep. Inadequate supply of medical services and medicines were observed at PHCs. 80 per cent of the PHCs did not offer abortion facilities making it difficult for the women in the village to access the same when required.

5.7. CHCs - Deliveries:

All the CHCs are required to offer 24-hour delivery services including normal and assisted deliveries and provide all the associated services about prenatal and antenatal care. (Directorate of General Health Services, 2012). In this context, the number of births at each CHC is depicted in Figure 15.

Figure 15: Number of Births at Each CHC

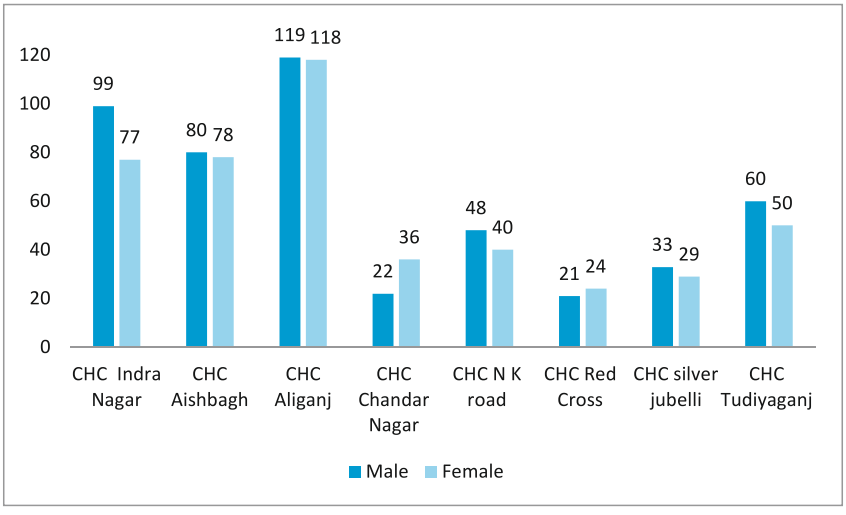


Figure 15 indicates that CHC Aliganj performed the highest number of deliveries while CHC Red Cross had the lowest. Data analysis further indicated that at all the eight CHCs 934 deliveries were conducted in a quarter during 2019. Of the total live births, 482 were boys while 452. The sex ratio of the region was lower than the child sex ratio of India i.e. 940:1000 however it is higher than the sex ratio of Uttar Pradesh i.e. 912: 1000 (Sex Ratio in India, 2011).

5.8 Patient Feedback:

The patient feedback gave insights on the quality of care and challenges faced to access services.

5.8.1 CHC - Patient Feedback:

It was observed that patients gave an overall rating of 3.45 on a scale of 5 for aspects pertaining to facilities at CHCs and 3.92 on 5 for aspects pertaining to facilities at PHCs. Figure 16 and 17 depict the patient's feedback on each parameter at CHC and PHC respectively.

Figure 16: Patient Feedback at CHC

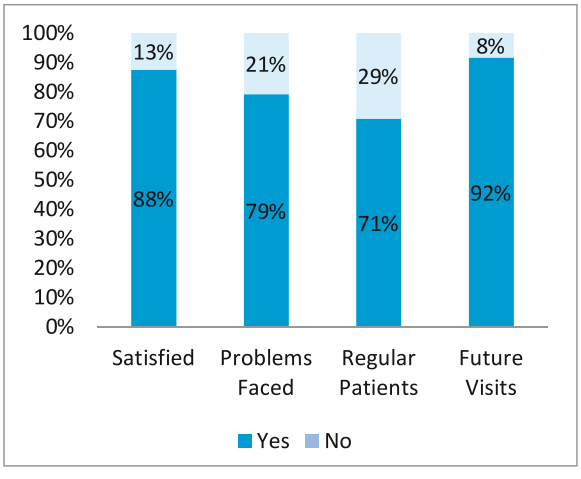


Figure 17: Patient Feedback at PHC

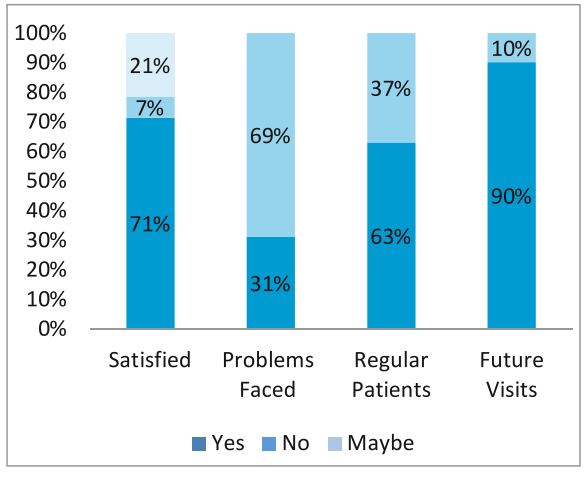


Figure 17 highlights that 71 per cent of patients were satisfied with the services at PHCs. Those who were unsure about their opinion amounted to 21 per cent. Patient interviews revealed instances of inappropriate staff behaviour which was reflected in the survey as a little over 1/3rd reported of facing issues while accessing healthcare services at the PHCs. Of the total patients covered in the survey, 63 per cent regularly used the services of PHCs and 90 per cent reported of having a possibility of o visiting them again for future healthcare requirements.

During discussions, patients suggested improvising the hygiene and sanitation of washrooms and pantry in the health facilities. The patients at PHCs recommended provision of adequate medicines, increase in the strength of female doctors, and courteous staff behaviour.

6. Discussion

The capital city of Lucknow acts as the largest hub for availing medical treatment. Not only the city residents but also the people from nearby villages and the rest of the state visit the city to avail adequate treatment. To cater to the huge population, it is imperative to have a robust system that can provide quality healthcare. It also directly relates with the United Nations (UN) Sustainable Development Goal (SDG) 3 which promotes good health and well-being with one of the targets (3.8) promoting universal health coverage including access to quality essential healthcare services (WHO, n.d.).

The survey conducted by Vatsalya aimed at understanding the status of primary and community health centres in the Lucknow district. While conducting the facility gap analysis, it was observed that most of the CHCs and PHCs covered in the study failed to meet the minimum requirements set by the IPHS guidelines.

The number of PHCs linked to CHCs was more than the prescribed number by the IPHS guidelines. For instance, the CHC at Aliganj was linked to nine PHCs as against the prescribed number of four PHCs. This impacted the referral system as only 25 per cent PHCs had a fully functional referral facility. When more PHCs are linked to a CHC, it increases the patient load and undermines the quality of care. Staff shortages also resulted in mismanagement of the facility causing inconvenience to patients as well as staff. Services such as mother and child care which are availed to a large extent by the locals are negatively impacted because of staff shortages. Due to work overload, the patient-doctor relationship is weak and is inhumane as many times the doctors behave rudely with the patients. Consequentially, it results in wrong diagnosis, treatment and loss of trust due to which patients refrain from visiting the health facilities.

Besides, work overload, medical and paramedical staff also complained about the poor pay structure received by them in comparison to the staff working in private health care.

The survey highlights that the number of medical, paramedical and administrative staff was inadequate at the CHCs and PHCs. Despite the demand for health care services, the vacant positions were not filled. This reflects on the priorities set up by the government through the National Health Policy 2017 (NHP) to address public health issues, especially in rural areas. For instance, 38 per cent of respondents reported receiving repeat prescriptions without further clinical consultations. Though this is a normal practice in health care, the monitoring of usage and effects of drugs for continuing the repeat prescription is required to be followed. This practice was found to be missing at the ground level. As per the National Rural Health Mission and the IPHS guidelines (2012), the purpose of the CHCs is to bring specialised healthcare services within the reach of rural people. Against the requirement of 30 beds at CHCs and six beds at PHCs on an average 14 per cent facilities faced shortages. IPHS guidelines also prescribe the required number of medical, paramedical and administrative staff along with prescribed technical facilities at the health centres such as OPD, abortion facilities, screening equipment for HIV and cancer.

The number of medical, paramedical and administrative staff was inadequate at the CHCs and PHCs. Despite the demand for health care services, the vacant positions were not filled.

In the above context, it was observed that both PHCs and CHCs struggled to meet the requirements. Inconvenience was caused to the patients due to paucity of beds. The unavailability of labour room at 88 per cent PHCs, forced mothers to deliver their babies in unhygienic conditions with inadequate facilities acquiring infections for self and the newborn. Absence of abortion facilities at some PHCs forces the patients to take unhealthy measures to abort an unplanned child. The survey confirms mismatch and shortages in the number of specialists, availability of technical infrastructures like PPIUCD / Kelly's Forcep, equipment for diagnosing HIV, cervical cancer, medical supplies, pregnancy and emergency contraceptive kits at the facilities. This undermines

the ability of the staff to perform their duties at optimal levels.

The shortages of staff, deficiency of health care service providers coupled with poor health care infrastructure further impacts the credibility of public health services. Unavailability of waiting area, gender-appropriate washrooms, adequate water, sanitation and hygiene at the facilities puts the beneficiaries on an increased risk of contamination. These conditions hamper the aim to achieve UHC as patients are forced to incur out of pocket expenses to avail quality and personalized care at private facilities.

CHCs and PHCs are supposed to act as centres for information dissemination with regards to available government schemes and provide respectful care to those in need. The inability of staff to disseminate appropriate information coupled with rude behaviour towards the patients raises questions on the qualifications and intent of the staff. This hampers the objective of NPH to reinforce the trust of the general public in the public health care system.

The shortages of staff, deficiency of health care service providers coupled with poor health care infrastructure further impacts the credibility of public health services. Hence, patients are forced to incur out of pocket expenses to avail quality and personalized care at private facilities.

7. Conclusion & Recommendations

The current study adds to the literature on the status of public health facilities in the Lucknow District. By focussing on the status of facilities offered at the primary and community health centres the study has helped in identifying factors contributing to the poor performance of the PHCs and CHCs. The findings highlight the need for strengthening the monitoring mechanisms for ensuring the provision of prescribed facilities.

To transform the public healthcare centres in the Lucknow district there is a need to increase the budgetary allocation. The vision of universal health coverage can be realized only by providing quality medical services. The increased allocation would help in reducing gaps in staff requirements, infrastructure, medical services, and supplies. It would also result in reducing the stress on the system and staff which in turn would uplift the morale of the public healthcare system.

There is a need to optimize resources. Despite IPHS guidelines have predefined norms for infrastructure requirement at public health centres, it is crucial to recognize that some facilities require more resources than others. To scale up the quality care monitoring mechanisms should be implemented to analyse the patient-flow at each facility. The findings should be utilized for appropriate resource allocation.

For effective resource utilization of manpower, there is a need to devise good HR management and administrative management systems. Currently, the facilities are managed by the doctors who already have a hectic schedule. Recruiting workforce with management abilities who can come up with innovative and creative solutions to mitigate the existing challenges will aid inappropriate functioning of the facilities. Hiring management interns from reputed B-schools can be considered as a possible immediate solution.

The relationship between healthcare staff and patients is based on faith and hence the conduct of healthcare providers is a crucial element in providing healthcare services. Medical, paramedical and administrative staff at all times need to have the highest level of empathy and possess a high ability to listen to patients. Warm and polite behaviour while dealing with the patients and their families can go a long way in emotionally healing patients. Duty of care is essential to foster appropriate attitudes towards patients. These soft skills can be attained through interactive training and discussions at various intervals. Regular patient exit interviews would help in evaluating the progress.

To bring efficiency into the system and increase accountability a sense of competition should be imbibed among the facilities. Various performance indicators (PI) should be designed to evaluate the facility's performance. Employees at the best-performing facilities should be rewarded with monetary and non-monetary incentives.

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Impact Analysis of School Health Programme

Abstract: *According to Census 2011, 39 per cent of the population comprises of children under the age of 18 years of which 26 crores attend school. Although the enrollment rate at the schools has been increasing, the health and nutrition of children in rural areas are highly compromised. This creates a negative impact on their growth and overall academic performance. To address this issue, Samavedana, a non-profit organization based in Pune has launched the School Health Programme (SHP) in the rural areas of Maharashtra. It aims to bridge the health and nutrition gap by educating children and parents about adopting a healthy lifestyle.*

The current article comprehensively assesses the implementation of SHP and outlines the methodology used to create an evaluation parameter for the programme. Besides assessing impact of SHP on the beneficiaries, the paper recommends a few course correction measures to attain the goals of the programme. The paper is an outcome of Mr. Pranav Joshi's, Ms. Prajakta Joshi's and Mr. Nipun Munot's 'We Care: Civic Engagement' internship with Samavedana in February 2020.

1. Introduction

The healthcare expenditure is one of the parameters that indicate the level of significance attributed by an economy to the health of its citizens. In 2019, the national healthcare spending of the United States as a percentage of GDP was equivalent to 17.8 per cent (Cms.gov, 2020). In the same year, the comparative healthcare spending of India as a percentage of GDP was only 1.28 per cent (Central Bureau of Health Intelligence, 2019, p23). Therefore, there exists a huge difference between spending on healthcare for developing nations as compared to developed nations. In addition to this, public spending as a percentage of GDP was lower than other developing countries like Sri Lanka (1.68 per cent) and Indonesia (1.40 per cent) (Kaul, 2019). Poor HDI indicates the need for attention to overall human development, but at the same time, there is little government expenditure on healthcare for countries like India.

According to National Health Profile 2019, “the per capita public expenditure on health in nominal terms went up from INR 621/- in 2009-10 to INR 1657/- in 2017-18” only. About 63.2 per cent of the total healthcare expenditure during the same year was financed by out-of-pocket (“OOP”) payments. With healthcare costs increasing at a CAGR of 5.6 per cent from 2014 to 2019, which is approximately 1.4 per cent higher than the overall inflation rate, private healthcare has become increasingly unaffordable impacting the lives of all age groups (EMIS, 2020).

Among different age groups, the health status of children is a point of concern. Socio-economic determinants such as nutrition, access to safe water, hygiene, sanitation, access to healthcare services and education impact child health. A combination of poverty and malnutrition severely influences the health of infants having a prolonged effect on their life in the growing years. Owing to poor nutrition, children are prone to falling sick often with high chances of dropping out of the school, thus continuing to remain poor (UNICEF, 2019). Nutritional anaemia, pneumonia, measles, under-nutrition, overweight and obesity continue to challenge the health of school-age children. These all highlight a need for improved water and sanitation, enhanced nutrition, micronutrient supplementation, improved immunization uptake and coverage, and informed and skills-based nutrition and health education for this age group and their careers (Unicef.org, n.d.).

A combination of poverty and malnutrition severely influences the health of infants having a prolonged effect on their life in the growing years. Owing to poor nutrition, children are prone to falling sick often with high chances of dropping out of the school, thus continuing to remain poor.

1.1. Child Health Scenario in India

As per Census 2011, children in the age group of 0 to 18 years comprises of 47.3 crores i.e. 39 per cent of the Indian population. Of these 47.3 crores, 26 crore children in the 6 to 18 years age group attend school. The enrollment rate has increased since the introduction of Sarva Shiksha Abhiyan (SSA) in 2002 and Right to Education Act 2010 (Ministry of Health & Family Welfare [MoHFW] & Ministry of Human Resource Development [MHRD], 2018, p17). However, school attendance is affected due to poor health conditions of children. For instance, mild anaemia among children is observed in rural areas, which impacts the performance at school and work. Non-communicable diseases are rampant among Indian children impacting their continuity of school education. Due to poor sanitation and access to toilets limited to only 66 per cent individuals in India, worm infections are found among children aged 1 to 14 years. While malnutrition is affecting the growth of children, lifestyle diseases such as obesity are also increasing (MoHFW & MHRD, 2018). Girl child marriage, sexual abuse, pregnancy during adolescence and poor knowledge of mensural hygiene also lead to ill-health and deaths among young girls (Partnership for Child Development [PCD],

2013). The National Mental Health Survey 2015-16 indicates that 7.3 per cent of individuals in the age group of 13 to 17 years had mental disorders (MoHFW & MHRD, 2018).

Schools are easier platforms for reaching out to children. It provides a robust platform to educate, create awareness and instil good habits among children in schools. Thus, efforts were made to implement the School Health and Nutrition (SHN) programme by MoHFW in 1990, but due to low emphasis on the subject and absence of national policy or strategy to implement the same, it was not prioritized. In 2001, the Central Government implemented the Mid Day Meal scheme to ensure fulfilment of nutritional requirements of children in school. Later on, through different policies and legal frameworks, varied programmes were introduced which included aspects of SHN. The major programmes include School Health Scheme, Mental Health Control Programme, National AIDS Control Programme, Reproductive and Child Health Programme's ARSH Component, WASH Programmes including Total Sanitation Campaign and SWASTH and School Health Check-up Programme (PCD, 2013). Under the National Health Mission, for early detection and intervention among 0 to 18 years age group, the Rashtriya Bal Swasthya Karyakram (RBSK) was launched in 2013 (Nhm.gov.in, 2020) and for the holistic development of adolescent population, Rashtriya Kishor Swasthya Karyakram' (RKSK) was launched in 2014 (Nhm.gov.in(a), 2020). In absence of a comprehensive programme to promote health in schools, the School Health Programme was introduced in 2018.

The School Health Programme is incorporated as a part of the Health and Wellness component of the Ayushman Bharat Programme of Government of India. It is envisaged as an important tool for the provision of preventive, promotive, and curative health services to the population. The School Health Programme aims to benefit 22 crore students in 12,88,750 schools all over India. (MoHFW & MHRD, 2018, pp 17-18).

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To complement the Government efforts and act upon the health issues prevailing during the schooling years, various NGOs came in the forefront to inculcate better health practices among kids and school-going children. PRASAR, Smile Foundation, Rural Healthcare Foundation, Deepalaya, Vatsalya, SNEHA renowned NGOs across the country have been working towards the cause of child and adolescent health. One such NGO is Samavedana, that works specifically on health interventions at schools in rural parts of India.

2. About Samavedana

Samavedana is a Pune based non-profit organization set up in 2003 under Pune Neurosciences Trust and Research Society. It aims to provide essential healthcare to the underprivileged and bridge the gap between Nutrition and underprivileged students by providing healthcare services. It majorly works towards awareness generation in the area of nutrition and early child and women's health, prevention and providing treatment. Samavedana currently works in Maharashtra with multiple initiatives. Philanthropic doctors, financial support from Sahyadri hospital and regular donations help Samavedana to undertake many initiatives. It operates programmes in the area of mobile health unit for delivering primary & essential care, preventive cancer care and financial aid for tertiary care. Besides, the organization creates awareness on organ donation and drives a school health programme in the interiors of Maharashtra (Samavedana, n.d.).

Samavedana has programmes in the area of mobile health unit for delivering primary & essential care, preventive cancer care, financial aid for tertiary care, promotion for organ donation and School Health Programme.

2.1. School Health Programme (SHP):

SHP was launched by Samavedana in 2017 to educate school children in areas of nutrition, personal safety and general well-being. The three essential pillars of the programme are Samavedana, parents and teachers who have a central focus on the child's health. To achieve its mission of grooming healthier children mentally, physically and socially, it works in coordination with the public health and education departments of

Maharashtra. The organization conducts activity-based health promotion, awareness sessions, provides access to health resources, medical check-ups and treatment facilities for developmental delays and eye surgeries. The programme focuses on students from grades five to ten in 25 schools of Mulshi block in Pune District covering around 8050 students (Samavedana, n.d.).

3. Project Focus

After executing SHP successfully in 25 schools, Samavedana aimed to expand the programme to more number of schools in rural areas of Pune District. Before the expansion, the organization decided to conduct a status check and evaluation of SHP to identify gaps for improvement. As a result, We Care interns from NMIMS Mumbai were assigned to undertake the project of 'Evaluation and Impact Analysis of School Health Programme' with the following objectives:

- To understand the SHP operations at 25 schools from 2017 to 2020 and create programme evaluation parameters.
- To evaluate the impact of SHP at 25 schools based on identified evaluation parameters.
- To identify gaps and opportunities for improvements in SHP.
- To evaluate challenges faced by SHP and provide recommendations for program expansion.

4. Methodology

To study in detail about the operations of SHP and identify evaluation parameters for the programme, detailed discussions were held with the programme-executing partners. Secondary literature, which was available at the organization such as information about schools and statistics, past record of students who were given medical treatment were studied. As the leadership team at Samavedana was interested in assessing the impact of SHP and identify gaps for programme expansion, evaluation parameters were established accordingly. It was decided to analyze the impact by initially identifying the inputs i.e. the activities conducted under the school health programme.

An evaluation framework was developed based on the following:

a) Knowledge retention i.e. the ability of students to recall learnings of the programme,
b) Utilization of health equipment (weighing scale, first aid kit) and accessories (books, and seeds for kitchen garden),
c) Behavioural change to assess the new learnings provided by Samavedana in daily life,
d) Creation of influencers among students to motivate each other and
e) Brand recall of Samavedana.

The identified parameters were finalized after the approval of the core team and CEO of Samavedana. Then a questionnaire for the survey was formulated. Each question in the survey was uniquely linked to a different evaluation parameter.

The sample for the study consisted of 12 schools from the universe of 25 schools where SHP was operational. The schools were selected on the following criteria: a) school location, b) geographical spread of students who attended a particular school, c) the number of students at the school, d) schedule of school exams/board exams, e) occurrence of festivals and local events, and f) resource availability at the school.

Respondents of the evaluation study consisted of i) students, ii) teachers, iii) headmasters, iv) sarpanch and v) parents. Questionnaires for each stakeholder were formulated and calibrated with all project executing partners and CEO of Samavadena.

To solicit information on the evaluation parameters highlighted above, FGDs were conducted with 535 students from selected schools. Each group consisted of an average of eight students. Female-led FGDs were conducted for groups of female students. To assess the impact of the SHP, 32 questions were asked to the students. Out of the 32 questions, 21 were binary questions and 11 were descriptive questions. The questionnaire for the FGD was based on the following data points under each evaluation parameter. To assess the knowledge retention data points such as a) Student's learnings from SHP, b) learnings of ARSH/good touch bad touch, c) the role of safety leaders, d) awareness about the availability of the first-aid box in school, e) use of kitchen garden, f) the importance of healthy eating habits.

Focus Group Discussions with Students

For assessing the utilization of health equipment and accessories students were probed on following data points, a) utilization of seeds and kitchen garden at home, b) participation in eye-check-up and use of spectacles provided by Samavedana and c) participation in health screening camp d) Use of books, charts given by Samavedana e) use of weighing scale and height f) Use of First Aid Box in case any student gets injured on the ground. For assessing behavioural change, questions based on a) consumption of nutritious food at home, b) participation in the upkeep of kitchen garden, c) physical and mental exercise, d) measurement of height & weight, e) consulting parents for reporting inappropriate touch, f) regular follow up with a hospital in case of ailments were asked. To map the creation of influencers, names of safety leaders and learnings of the programme were asked. Students were asked to name a few programmes of Samavedana at their school to assess brand recall.

Personal interviews were carried out with approximately 20 teachers, 12 headmasters and 6 sarpanch, from 12 schools to solicit information on the following data points: a) reiteration of the knowledge inputs provided by Samavedana, b) utilization of health equipment and accessories, c) students discussing with teachers about issues like inappropriate touch and their health, d) impact of the programme on students, e) areas of improvement and f) recall of Samavedana's programmes. The questionnaires covering teachers, headmasters and sarpanch had 20 questions of which 10 were binary and 10 were seeking elaborate feedback.

As meetings with all the parents were difficult, approximately five parents of those students who received medical care were interviewed. While interviewing the parents, seven questions were asked of which five were binary questions and two were descriptive. The questions were based on the following data points: a) knowledge about Samavedana's programmes, b) child's health status and treatments - current and past, c) communication with the child about health/personal issues, d) awareness about substance abuse, and e) child's participation in the kitchen garden.

4.1. Data Analysis:

Every question incorporated in the questionnaires designed for different stakeholders was mapped to one of the five evaluation parameters for assessing the impact of the SHP. To simplify the work of on-field volunteers, the only percentage of FGD participants i.e. school students, who gave favourable responses for all asked questions was noted. The percentages were then mapped with a five-point rating scale developed for each evaluation parameter. The same scale was utilized to map the responses of the remaining respondents i.e. teachers, headmasters, sarpanch and parents. The data were treated similarly for all schools and rating/scores were obtained.

On the five-point rating scale for 'knowledge retention' parameter, a score of 1 indicated 20 to 35 per cent retention rate, 2 indicated 35 to 50 per cent, 3 indicated 50 to 65 per cent, 4 indicated 65 to 79 per cent and 5 indicated 80 to 100 per cent retention rate. Retention rate is the number of students who were able to recall out of all interviewed.

On the five-point rating scale for 'utilization of health equipment & accessories' parameter, a score of 1 indicated up to 14 per cent favourable responses, 2 indicated 15 to 29 per cent, 3 indicated 30 to 44 per cent, 4 indicated 45 to 59 per cent and 5 indicated more than 60 per cent favourable responses.

On the five-point rating scale for 'behavioural change' parameter, a score of 1 indicated up to 14 per cent desired responses, 2 indicated 15 to 29 per cent, 3 indicated 30 to 44 per cent, 4 indicated 45 to 59 per cent and 5 indicated more than 60 per cent FGD participants giving desired response to underscore behavioural change.

For the parameter of 'creation of influencers', on a five-point rating scale, a score of 1 indicated up to 4 per cent desired responses, 2 indicated 5 to 9 per cent, 3 indicated 10 to 14 per cent, 4 indicated 15 to 19 per cent and 5 indicated more than 20 per cent of FGD participants giving desired responses.

Finally, to assess Samavedana's 'brand recall' parameter, on the five-point rating scale, a score of 1 indicated 20 to 34 per cent brand recall, 2 indicated 35 to 49 per cent, 3 indicated 50 to 64 per cent, 4 indicated 65 to 79 per cent and 5 indicated more than 80 per cent brand recall. Brand recall was attributed with higher percentages for each score as it had a higher significance in the impact assessment of SHP for Samavedana.

The data mapped on various linear scales mentioned above was presented with the help of descriptive statistics in the form of bar graphs and charts.

The data gathered for Parents, Teachers, Headmasters and Sarpanch was also analysed similarly. The entire school visit data was compiled and studied using excel based functions. Percentage positive response data were converted into scores as discussed previously. The scores allocated for all the stakeholders were combined to calculate the average score for the school against each of the objectives.

4.2. Scope & Limitations of the Study:

The study aimed to understand the progress made by schools under the School Health Programme. Participants for the FGD were selected based on their availability when the We Care interns visited the school.

While the study was undertaken to the best of the abilities of the researchers, it has several limitations like limited availability of time due to school operating hours. The methodology deployed to undertake the study was developed from scratch in record time. As multiple organizations had interventions in the same schools, there were instances where respondents stood to benefit from them too and not just by Samavedana. Many a time, students were not opening up and a lot of effort was needed to create a friendly atmosphere.

5. Findings

5.1. Programme Evaluation Parameters:

To identify the evaluation parameters for the SHP, a series of discussions were conducted with Samavedana team. Given the structure of SHP, it was essential to evaluate the retention rate of the training and sessions conducted by Samavedana with the students at the schools. Under the SHP, equipment like weighing scale and height measuring scale was provided to schools for assessing the health status of students. Books and seeds for practising kitchen gardening were also supplied to the students. Knowledge retention and effective utilization of equipment were considered as output indicators for the evaluation of SHP.

The observed behavioural change in the day to day activities such as eating habits, consumption of balanced diet, reporting of inappropriate behaviour by known and unknown people to teachers and parents, undergoing appropriate treatment for ailments were also evaluated to assess the outcome of the programme.

To create peer influence, Samavedana had appointed a few students as safety leaders. They were given the responsibility to maintain and use the first-aid-box. Mapping influence of peer leaders (influencers) was considered as an important evaluation parameter.

Finally, brand recall was another important parameter which was considered in the evaluation framework because it is a qualitative measure of how well Samevdana's name is connected with the beneficiaries. Higher the level of brand recall, higher is the probability of retaining the learning offered by Samavedana to the beneficiaries.

Knowledge retention, utilization of equipment, behavioural change, creation of influencers and brand recall of Samavedana were the identified parameters for evaluation of SHP. The interns undertook the impact evaluation study based on these parameters.

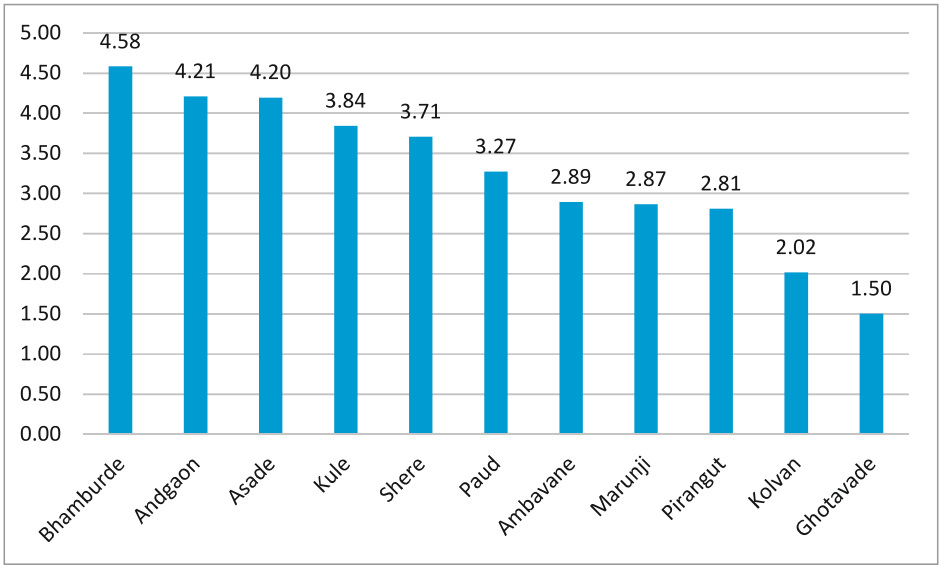
5.2. Impact Evaluation:

The five identified evaluation parameters i.e. knowledge retention, utilization of health equipment, behavioural change, creation of influencers and brand recall of Samavedana were used to conduct the impact evaluation study for the SHP. Based on the scoring sheet matrix, for different sets of questions designed for each evaluation parameter, the average score of each objective for each stakeholder and activities of SHP was calculated. The following section depicts the performance of 12 schools in 11 villages concerning specific evaluation parameter.

5.2.1. Knowledge Retention:

The ability of students to recall learnings about adolescent reproductive and sexual health, good touch - bad touch, the importance of healthy eating habits and use of kitchen garden, availability and usage of first-aid box and role of safety leaders was examined. School wise average scores for the knowledge retention parameter are depicted in Figure 1.

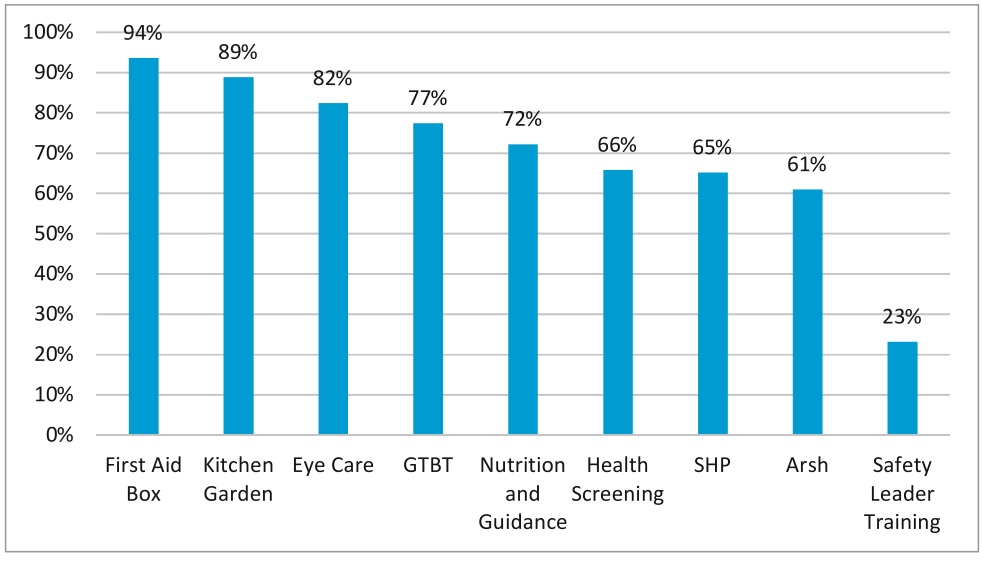
Figure 1: Knowledge Retention



As represented in Figure 1, three schools from Bhamburde, Andgaon and Asade village scored above 4 i.e. above 80 per cent knowledge retention. Five schools scored less than 3 with the school at Gotavade as the poorest performer. Better performance for knowledge retention is attributed to better engagement of school teachers, headmasters and students during and after Samavedana's session in school.

Under the SHP programme, students were provided with various educational inputs in the areas of first aid, kitchen garden, eye care, good touch bad touch (GTBT), nutrition, adolescent reproductive and sexual health, safety leader training and so on. Figure 2 shows the activity-wise knowledge retention levels of students.

Figure 2: Activity Wise Knowledge Retention (%)

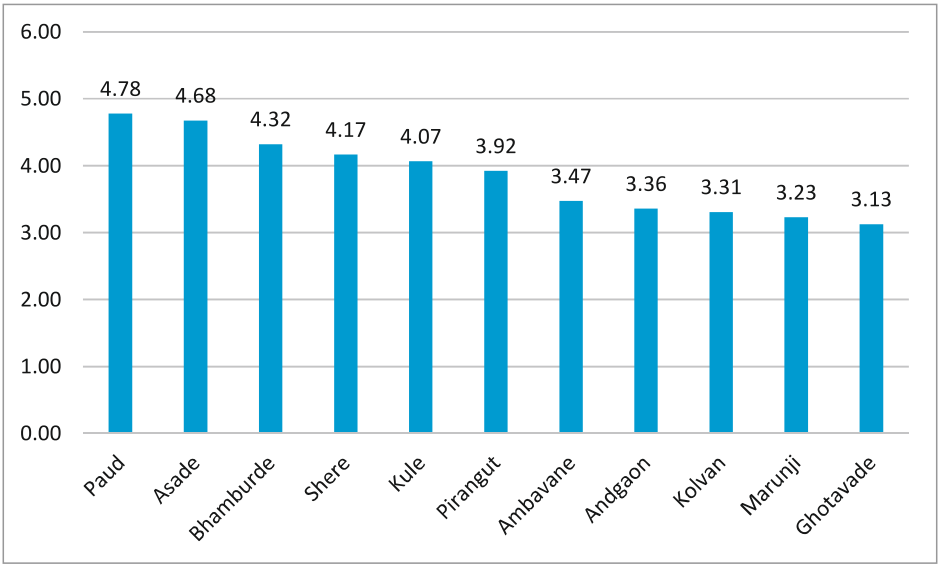


It can be inferred from Fig. 2 that students had a higher ability to recall the learnings related to first aid box, kitchen garden and eye care. On the other hand, only 23 per cent of students were able to retain knowledge about safety training. Poor recall for safety training was due to less inclination of schools to encourage students to carry out different activities recommended by Samavedana. Additionally, the number of sessions conducted in school for safety leader training was relatively less compared to other initiatives.

5.2.2. Utilization:

The utilization of health equipment i.e. weighing scale, first aid kit, spectacles; accessories i.e. books, charts and seeds for kitchen garden and participation in eye check-up and health screening camps were assessed via a set of questions. School wise average score for the utilization parameter is listed in Figure 3.

Figure 3: Utilization of Equipment and Accessories



The trend in Figure 3 shows that five schools at Paud, Asade, Bhamburde, Shere and Kule village recorded scores above 4 i.e. more than 60 per cent beneficiaries utilized the equipment. It was observed that utilization of health equipment was directly proportional to the involvement of teachers in maintaining the equipment. Also, the number of field visits undertaken by Samvedana's staff to monitor the same resulted in higher utilization of health equipment and accessories.

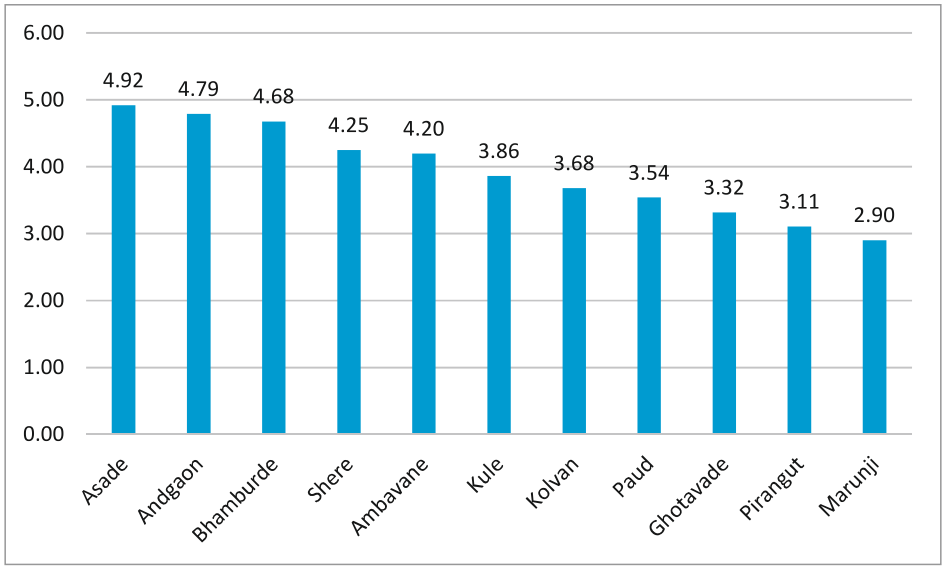
School Health Equipments: Sadiometer & First Aid Box

Parent interactions highlighted that they were unable to relate to SHP. They were hesitant to approach private city hospitals referred by Samavedana primarily because they believed that their children were healthy and did not need any medical intervention. The private hospital's cultural misfit compelled them to adopt an avoidance approach.

5.2.3. Behavioral Change:

To assess the new learnings provided by Samavedana in daily life, questions about behavioural change were asked to students. The researchers i.e. interns sought the information on habits related to consumption of nutritious food at home, physical and mental exercise, regular check on height & weight, maintaining kitchen garden, reporting parents or teachers about inappropriate touch, and so on. School wise average score for assessing the behavioural change post-Samavedana's intervention is represented in Figure 4.

Figure 4: Behavioural Change



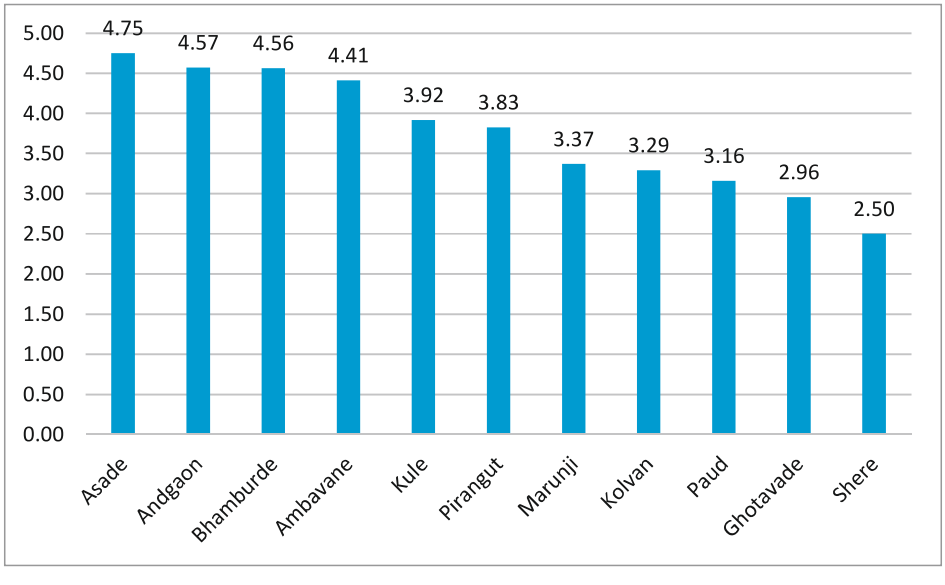
Based on Figure 4 it can be observed that five schools scored above 4. A higher score indicates students incorporating positive and healthy changes in their personal lifestyle. Higher scores are proportional to the active involvement of teachers and parents in reinforcing the new learnings among children.

Students engaged in Kitchen Garden

5.2.4. Creation of Influencers:

SHP aimed at creating influencers within students to motivate each other about knowledge acquired during the training. These influencers assisted in creating self-sustaining ecosystem where best practises related to health and hygiene were retained and followed. Figure 5 indicates the school wise percentage of desired response received about the creation of influencers during the FGDs.

Figure 5: Creation of Influencers



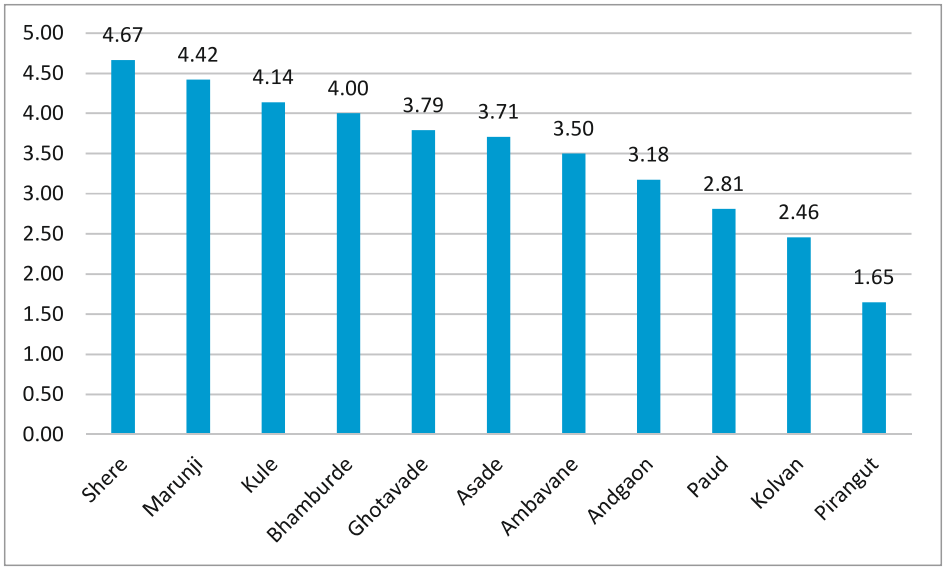
It can be inferred from Figure 5 that schools in Asade, Bhamburde, Andgaon, and Ambavane scored above 4, indicating influencers being effective in reinforcing health messages. High scores can be also be attributed to greater engagement of school teachers and students for actively practicing the learnings and thereby increasing the retention levels.

Samavedana had partnered with Asha workers to work as patrons of the programme throughout the year. Asha workers have good rapport with the locals and enjoy their trust. Students too have high regard for Asha workers. However, it was observed that many Asha workers left the programme midway owing to poor compensation. None of the Asha workers was actively working for SHP when the evaluation took place.

5.2.5. Brand Recall:

Assessing the brand recall of Samavedana was one of the most important criteria in the study. Based on the respondents' ability to name a few activities conducted by Samavedana, the brand recall parameter was assessed. After averaging the scores for each stakeholder for each school, the final score of each school was calculated. Figure 6 indicates the school wise percentage of favourable response received during the FGDs with students.

Figure 6: Brand Recall by Students



The trend in Figure 6 shows that the brand recall was highest in schools at Shere, Marunji and Kule. A score above 4 indicates 80 per cent of total respondents were able to recall the brand name of Samavedana. Higher brand recall scores are attributed to better coordination between of school authorities and Samavedana's representatives over the years. The brand recall was low at Pirangut, Kolvan and Paud due to the large size of the class, more number of NGOs visiting the school and hence influencing the attention span of children during the sessions.

Brand recall among other stakeholders such as teachers and headmasters was high in the case of top-performing schools due to higher engagement and formation of trust over the years. As the students at the top-performing schools had a higher brand recall. Therefore there was a better dissmenation of health messages among the parents too.

As most of the parents from schools at Paud, Kolvan, Pirangut were daily wages workers they were unable to participate in school activities. Thus, brand recall was generally found to be low among parents.

5.2.6. Overall Performance:

Overall performance of each school covered in the survey was calculated. Figure 7 below gives the school wise composite evaluation score.

Figure 7: School-wise Composite Evaluation Score (%)

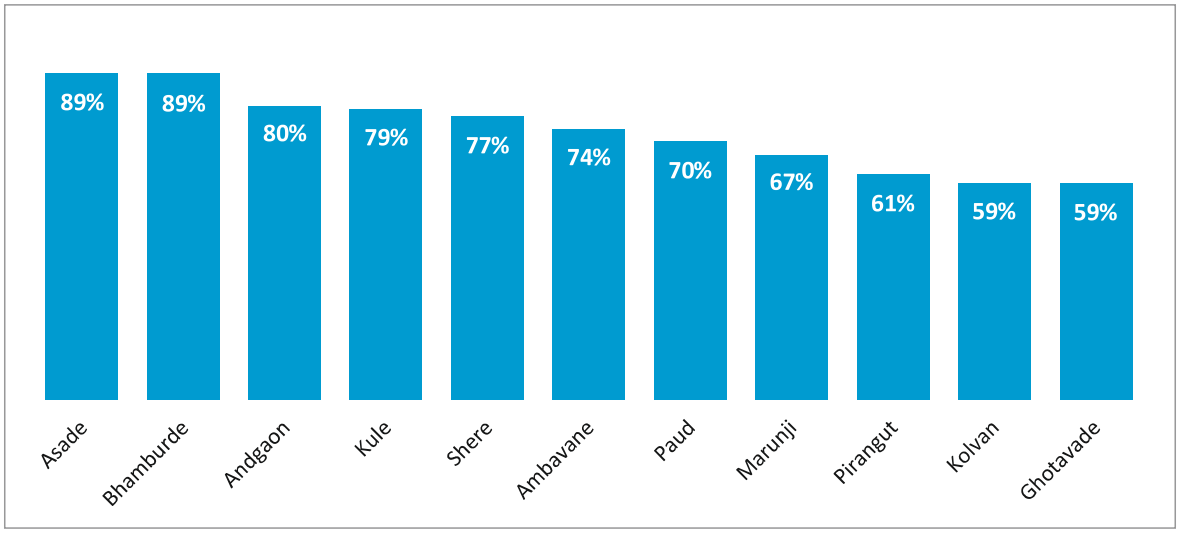


Figure 7 indicates that the school in Asade village was the top overall performer whereas the school in Ghotavade village was the lowest. Frequent engagement of Samavedana's team with various stakeholders was seen in high performing schools. Constant engagement helped in building trust and led to better recall and retention rate. Whereas, in schools having high student strength and poor teacher-student ratio, the program effectiveness was found to be low. Over burdened teachers and headmasters did not make sufficient efforts to follow up with the students. Thus, their overall performance in terms of retention of learnings of SHP and the subsequent behavioural change was low.

6. Discussion

The School Health Programme was functional since 2017 in 25 schools in Pune District. The programme was under execution for approximately three years. Samavedana's team was constantly involved in driving the programme through various stakeholders. It was observed that the organization did not create an evaluation framework with a detailed breakdown of overarching goals of the programme in form of execution levers. Absence of such a framework might have hindered the efficiency of the team in delivering output by taking appropriate actions. It was also felt that SWOT analysis should be conducted for every school to assess the need for an intervention. Programme customization can be undertaken to avoid overlaps in activities.

The academic cycle of most of the schools is of 10 months and students get promoted to higher classes each year. This posed difficulties for the Samavedana team administering the programme. Mixing of students and the progression of them into the next classes added to the documentation burden. Constant updates of the medical and other records increased the administrative tasks of the team and consequentially there was less time left to systematically assess the programme's impact. At times Samvendana's team met the students after long intervals, thus missing out on reinforcing the learning's and students losing track of the past activities.

SHP is not an academic or textbook-based learning programme, it operates on a learning-by-doing approach. But the students as well as teachers gave it a secondary treatment.

SHP is not an academic or textbook-based learning programme, it operates on a learning-by-doing approach. But the students as well as teachers gave it a secondary treatment due to a couple of factors. Firstly, similar activities were conducted in SHP every year, due to which stakeholders had a casual attitude towards the same. There was a general feeling of disinterest as the significance of the activities did not matter to teachers or students in a uniform manner. Secondly, as schools partnered with multiple NGOs to provide similar services for the students, there was an overlap and perhaps overdose of various programmes. This

created programme fatigue among the children. Hence, to ensure that the SHP message reaches the target audience effectively, there is a need for the school administration to first value it, understand children's capacity to absorb the messages and avoid duplication of messages. Creating visual recalls and placing them in schools and assembly points in villages, placing its brand name and logo on all the IEC content of SHP shall go a long way in assisting knowledge retention, enhancing brand recall and visibility among stakeholders.

Each year the partnering NGOs supplied certain equipment and accessories to schools, such as digital tools, desktop computers, laboratory apparatus, books, sports gear, and medical kits to schools. As the distribution is not uniform across schools due to the issue of geographical proximity some schools received more kits than others. Certain schools did not have access to skilled trainers to utilize the equipment and hence it resulted in ineffective utilization.

To ensure that the SHP message reaches the target audience effectively, there is a need for the school administration to first value it, understand children's capacity to absorb the messages and avoid duplication of messages.

Social conditioning of people acts as a barrier for behavioural change. During the survey, it was observed that social stigma prevented the students from adopting best practises related to health and hygiene. For instance, primary school children who needed spectacles refrained from wearing the same as their peers made fun of them. This resulted in the deterioration of their eye-sight. Despite receiving a complete waiver for medical treatment of children at a private hospital, many students and their parents avoided going to the hospital, as they could not relate to high-end facilities in an urban locality. Therefore, it is essential for Samavedana's team to use behavioural change communication effectively with the parents, understand their perspective and use participatory mechanisms in facilitating mindset changes.

Teachers are one of the three pillars of SHP and hence their active involvement is crucial in attaining the goals of the programme. It is no doubt that participation in SHP increases teachers workload in

already short-staffed schools. As of now, there is no direct incentive for the teachers, but going ahead, to increase teacher's active participation in SHP, Samavedana should consider publicly appreciating the teachers. This will stimulate their motivation and interest.

Due to economic constraints, parents were not acquainted with the activities of SHP. Cultural barriers restricted parents from accepting SHP's approach to safeguarding the child's health. This issue could be addressed by improving the rapport with the parents by having ice-breaking activities followed by a focussed group discussion on child health.

Currently, Samavedana is constantly involved in driving the SHP activities at 25 schools, which are spread over a large geographic area. Physical monitoring of SHP programme consumes significant time and energy of Samavedana's staff members. In this context, it can explore some technology options for virtual monitoring of the programme. This will enable the team to effectively deliver knowledge and improve retention.

Merely increasing staff to scale up Samvedana's reach will not be an effective mechanism. Its previous attempts to involve ASHA workers in the programme also failed due to their inability to meet their expected compensation. Thus to increase the scale and ownership of the programme, the parent-teacher associations should be activated and local committees should be formed. These committees can play a huge role in sustaining the impact of the programme. Training of parents can be undertaken at their convenient time so that they can assist the teachers effectively whenever required. Local college volunteers or employee volunteers can also be sourced to fulfil the human resource required to sustain the programme.

Investment in child health goes a long way in creating a healthy generation. Hence, there is a need for bringing significant financial and non-financial investment in this area by private as

Investment in child health goes a long way in creating a healthy generation. There is a need for bringing significant financial and non-financial investment in this area by private as well as public players.

well as public players. This will aid in achieving Good Health and Well-being (SDG 3). Programmes like SHP significantly improve rural children's health by imparting knowledge on good nutrition and hygiene practices, formulating change leaders and offering assistance for tertiary care.

7. Conclusion

According to the NITI Aayog report on SDG Performance of India 2019-20, Maharashtra is a front-runner in the country for performance on SDG 3. Programmes like SHP designed for ensuring the general well-being of rural children contributes to the state's performance. Therefore, it is desirable for the administration as well as philanthropists to extensively support such programmes.

The current paper highlights the significance of SHP in addressing the nutritional and health requirements of children. The impact evaluation highlights that knowledge retention, utilization of equipment and behavioural changes were inter-related and directly proportional to the involvement to students, teachers and parents in SHP. Brand recall on the other hand was majorly dependent on the relationship between Samavedana with all key stakeholders. The programme lagged in creating influencers due to its structure, infrequent interactions with students and the absence of incentives for teachers to adopt and implement the activities.

In the near future, Samavedana should take course correction measures to improve the effectiveness and efficiency of the programme. The organization should develop a framework for onboarding of schools in SHP. There is a huge scope of expansion for the programme in nearby localities by partnering with local stakeholders such as ASHA workers and local doctors or medical students should be considered for enhancing the effectiveness of the programme. To create ownership of SHP Samavedana should strengthen relationships with schools, parents and local administration to ensure healthy childhood for the children residing in the vicinity.

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A Study on Public Perception of Road Safety at Ghodbunder Road

Abstract: *India has one of the worst road safety records. To minimize road accidents and fatalities the Ministry of Road Transport and Highways has initiated '4E framework'-. 'Education, Enforcement, Engineering & Emergency'. The current paper has been developed on a micro-study undertaken to evaluate the status of road safety on Ghodbunder Road.*

The primary research revealed a general dissatisfaction amongst the respondents about public awareness and their adherence to traffic rules. It highlights the poor enforcement of traffic rules by authorities and the inadequacy of road safety measures. The paper offers recommendations to facilitate behavioural change by gradually building a road safety culture and developing cross-sector partnerships to achieve SDG 3 (Good Health and Well-being) and SDG 11 (Building Sustainable Cities and Communities). The paper is an outcome of Ms. Esha Hirlekar's and Mr. Vedant Haldekar's 'We Care: Civic Engagement' internship with Green Ecospace Foundation in February 2020.

1. Introduction

"Roads are the arteries through which the economy pulses" (Berg, Deichmann, Selod, 2015). Road networks and transportation are perhaps the most fundamental factors in a country's well-being and progress. Roads aid in developing connectivity and accessibility thereby enriching a country both economically and socially. Unfortunately, road accidents are the eighth leading cause of death in the world (WHO, 2018). According to WHO as cited in Road Safety for All (2019), 1.35 million people are killed and 50 million seriously injured every year owing to road crashes. The condition is even worse in developing countries as 93 per cent of deaths occur in low- and middle-income countries which account for only 60 per cent of the vehicles registered worldwide. Road accidental deaths among economically active population impact the productivity of nations and have huge impacts on the families and local communities. Poor road infrastructure, weak law enforcement, and low awareness levels among users in developing countries make road safety a major concern.

Considering the rising number of fatalities due to road accidents, the United Nation's (UN) incorporated the agenda of road safety in the Sustainable Developmental Goals (SDGs) 2030. Specifically targets 3.6 and 11.2 aim towards reducing road accident fatalities globally by improving infrastructure. To achieve these targets, the UN directs to expand public transport and provide safe, affordable, accessible, and sustainable transport systems to everyone.

Mobility plays a crucial role in the development of a nation. Post liberalization India has made a tremendous investment in improving road connectivity. Various steps have been designed to ensure road safety. For instance, in 2010, the government formulated the National Road Safety Policy which outlines various measures to promote awareness, establish databases, and ensure better infrastructure and law enforcement. "A multi-pronged road safety strategy based on 4 Es: Education, Engineering (both of roads and vehicles), Enforcement and Emergency Care has been formulated (Wadhwa, 2018)" The Motor Vehicle (Amendment) Act, 2019 was introduced to establish stringent measures concerning road safety through penalty hike, electronic monitoring, automation of vehicle fitness and driving tests, provision of cashless treatment during golden hour, and increased compensation for hit and run cases (Road Accidents in India, 2018). To maintain roads series of identification and rectification of black spots across the country have been undertaken. 10 per cent of funds are allocated to maintain state roads (Press Information Bureau, 2018).

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Despite the efforts taken by the Government of India, according to the World Road Statistics, 2018, the country is ranked at number one position for road accidental deaths across 199 countries, followed by China and the US (The Hindu, 2019). Global Status Report on Road Safety 2018, indicates that India accounts for almost 11 per cent of the accident-related deaths in the world. The increase in road accidents is attributed to the exponential increase in the number of registered vehicles, increased road networks coupled with poor maintenance of road infrastructure in the country. Data presented in 'Road Accidents in India 2018' states that since. 2017, the number of accidents increased by 0.46 per cent, accidental deaths increased by 2.4 per cent and injuries increased by 0.33 per cent. The report highlights a serious concern regarding the 69.9 per cent young working population being victims of road accidents. Amongst these 53.9 per cent are

pedestrians, cyclists, and two-wheeler riders." This is both depressing and alarming for a country as it has an impact on the nation as well as the family. "Road accidents cost India 3 to 5 per cent of GDP every year" (IndiaSpend, 2019),

According to the Road Accidents in India Report 2018, the national average for road accident fatalities was 32.4 per 100 accidents. Progressive states like Maharashtra which has made huge investments in road infrastructure ranks 19th in the severity of road accidents and has an average of 37.1 deaths per 100 accidents. According to Statista Research Department, 2020, "in 2018, around 13 thousand people lost their lives in road accidents across the Indian state of Maharashtra".

In Mumbai, from 2015 to 2018 the number of deaths and injuries due to road accidents decreased by 22 per cent (Wadhwa, 2019). Albeit in 2019, 403 people were killed in 378 fatal crashes (Natu, 2020). Vulnerable users such as pedestrians, cyclists, and motorcyclists comprised of 83 per cent of non-fatal injuries and 92 per cent deaths (Wadhwa, 2019). Although the overall trend of road accidents in Mumbai has decreased since 2015 the figures are still alarming. At Ghodbunder Road i.e. State Highway 42 that connects the Westerns Express Highway and Eastern Express Highway over a 20 km stretch, is known for fatal road accidents. Poor quality roads having large potholes pose major hazards to the commuters comprising of vehicles ranging from bicycles to heavy trucks (Gharat, 2019).

Although the overall trend of road accidents in Mumbai has decreased since 2015 the figures are still alarming. Poor quality roads having large potholes pose major hazards to the commuters comprising of vehicles ranging from bicycles to heavy trucks.

The quest for minimization of road accidents cannot be driven solely by the government. The vast and varied nature of problems as well as the geography over which they occur makes it almost impossible for the authorities to improve the situation. A large part of this responsibility lies on citizens themselves as well.

To facilitate behavioural change among people and enable them to follow road safety measures a few NGOs like United Way Mumbai, Save Life Foundation, Global Road Safety Partnership, Muskan Safety have been playing a pivotal role. Considering the increasing amount of road fatalities on Ghodbunder Road (connecting Mumbai & Thane) Green Ecospace Foundation proposed to undertake an action research study on assessing the current status of road safety and implementation of best practices by involving multiple stakeholders.

2. About Green Ecospace Foundation (GEF)

GEF is a Section 8, company registered under the Companies Act 2013 in 2019. It is an initiative of the citizens of Hiranandani Estate, Thane, formed with the objective of "maintaining the locality in a responsible, environment friendly and sustainable manner by engaging the local government agencies" (Facebook.com, n.d.). The organization aims to achieve its objective by increasing green cover, ensuring effective waste management, water conservation, and improving traffic management to avoid road accidents. In alignment with the above initiatives, GEF has carried out various drives/campaigns like an increase in green cover drive, clean sweep campaign, and citizen awareness drive in Hiranandani Estate and nearby localities.

Tree Plantation at Patilpada Hill, Thane

Due to its poor infrastructure, Ghodbunder Road had become a high-risk zone leaving the commuters prone to road accidents. Road safety being a major focus area of GEF's social agenda, the organization decided to undertake the project of "Zero Accidents on Ghodbunder Road". The organization proposed to conduct an action research study to examine the current status of road safety at Ghodbunder Road and subsequently use the research findings to influence the concerned government officials and elected representatives of the region to act on its recommendations.

3. Project Focus

In the above context, the We Care interns were assigned the responsibility of conducting an action research study on 'Status of Road Safety at Ghodbunder'. Objectives of the study were:

- To examine the current status of road safety at Ghodbunder road.
- To identify best practices in road safety at the national level.
- To recommend a few strategies for minimizing road accidents.
- To draft a research report.

4. Methodology

The study being exploratory in nature gathered data from both primary and secondary sources. The status of road safety was studied by undertaking secondary research. World Bank blogs and Accident Statistics of India were referred to learn about the overall scenario of road safety. Local newspaper reports were accessed to understand the trend of accidents globally and in Mumbai with specific reference to Ghodbunder Road. Accident control models implemented by the Tamil Nadu Government and the model of Zero-fatality Corridor at Mumbai-Pune Expressway were also referred to identify best practices in road safety implemented nationally.

To examine the current scenario of road safety accidents at Ghodbunder road primary research was undertaken. Data was collected through a) focus group discussion (FGD) with members of the Green Ecospace Foundation b) an online survey on the Ghodbunder Road Safety project and c) personal interviews with traffic police authorities. Tools for data collection were designed based on the 4E framework i.e. Education, Enforcement, Engineering, and Emergency Response.

FGD was conducted to understand the users' perspective and gather qualitative insights about a) road safety at Ghodbunder Road, b) problems faced while traveling, c) perceptions about existing infrastructure and enforcement to maintain road safety, d) opinion about the effectiveness of Traffic Awareness Programs (TAP), e) knowledge about responsible authority for the implementation of road safety, f) opinion about Emergency Response. 12 respondents comprising of those regularly commuting on the Ghodbunder Road participated in the FGD.

Based on the findings of the FGD, an online survey was administered. Through the survey data about a) mode of transport used, b) perception about awareness of traffic rules among users, c) knowledge about the Traffic Awareness Programs (TAP), d) reasons for road accidents, e) effectiveness of law enforcement agencies and practices, f) infrastructural safety and g) perception about driver response to road emergency on Ghodbunder Road was collated.

The questionnaire consisted of 11 questions from which nine had close-ended responses. Of these, six questions were measured on a five-point Likert scale (1- Very low, 2 - Low, 3 – Neutral, 4 – High, and 5 – Very high). These questions solicited the perceptions of respondents about a) public awareness and adherence to traffic rules, b) effectiveness of TAPs, c) attribution of road accidents to driver negligence, d) enforcement of traffic rules and its effectiveness to deter commuters from breaking rules, e) road safety and f) response to a road accident as a driver. There were four multiple-choice questions incorporated in the questionnaire to solicit responses on a) mode of transport generally used to commute, b) attended TAP, c) appropriate location to conduct TAP, and d) reason for not being a 'Good Samaritan'. In case respondents wished to share additional data regarding the reason for not being 'Good Samaritan' they were requested to share the same via an 'Other' field. For those who felt that the enforcement and effectiveness of traffic rules were low on Ghodbunder Road an open-ended question was asked.

To solicit maximum responses from the residents of Hiranandani Estate, the online survey was circulated through WhatsApp groups. In all 1067 residents responded to the survey.

To develop insights about initiatives and challenges with regards to road safety, it was decided to conduct personal interviews with traffic police authorities. Respondents comprised of, a senior inspector, two assistant inspectors, and three constables deputed at the Waghbil Traffic Police Station, which covered a major portion of the road considered under the “Zero Accidents on Ghodbunder Road” project. The interview guide covered questions about the following data points: a) perspective about road safety issues and b) possible solutions, c) awareness about safety rules and regulations d) opinion about TAP d) surveillance procedure e) the number of offenses booked per day f) type of vehicle mostly engaged in accidents g) causes of accidents h) opinion about safety at Ghodbunder Road i) perceptions about implementation of Emergency Services.

The data gathered via an online survey was analyzed using Google spreadsheets and Microsoft Excel, whereas the content analysis technique was used to analyze data gathered via FGDs and personal interviews. The findings and inferences were utilized to develop recommendations for achieving the goal of Zero Accidents.

The preliminary draft report was shared with road safety expert Mr. Pradeep Ghazis, Head of Safety, Technova Imaging Systems for soliciting his ideas on strengthening the recommendations. Outcomes of the discussion aided in formulating a plan of action to achieve the goal of zero accidents on Ghodbunder road.

Good Road Practices: Seminar & Awareness Drive (in partnership with Thane Police) - Hiranandani Estate

5. Findings:

The 1067 respondents of the survey were residents of Hiranandani Estate. Figure 1 depicts the age group of respondents.

Figure 1: Age Group of Respondents

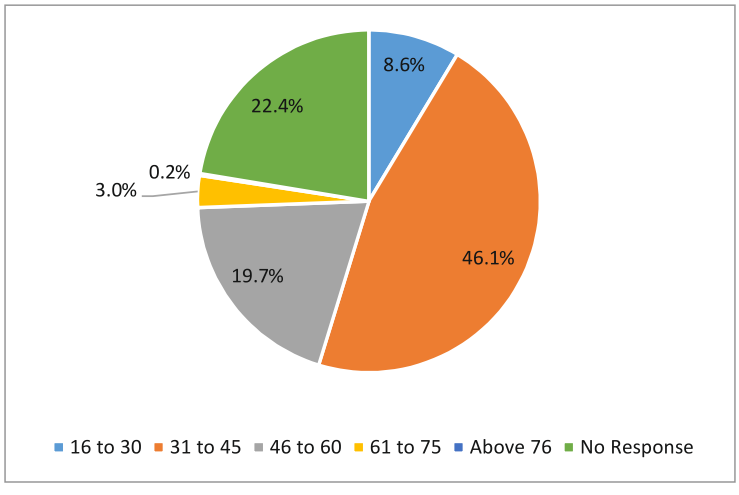
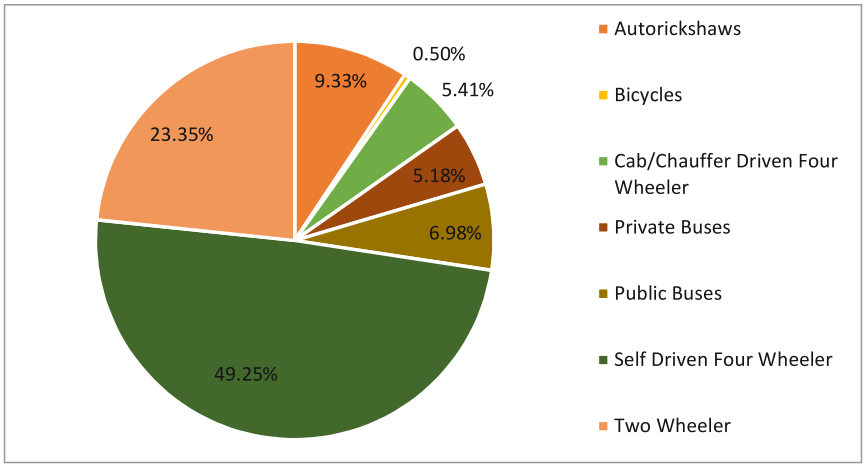


Figure 1 highlights that 46.1 per cent of respondents of the survey were in the age group of 31 to 45 years followed by 19.7 per cent being in the age group of 46 to 60 years. Thus, most of the respondents were in the working-age group who commute from the Ghodbunder Road regularly. It is also noted that 22.4 per cent of respondents did not reveal their age while responding to the survey.

To understand the nature of the commute of the respondents, they were also asked about the mode of transport used by them. Figure 2 represents the mode of transport used by the respondents.

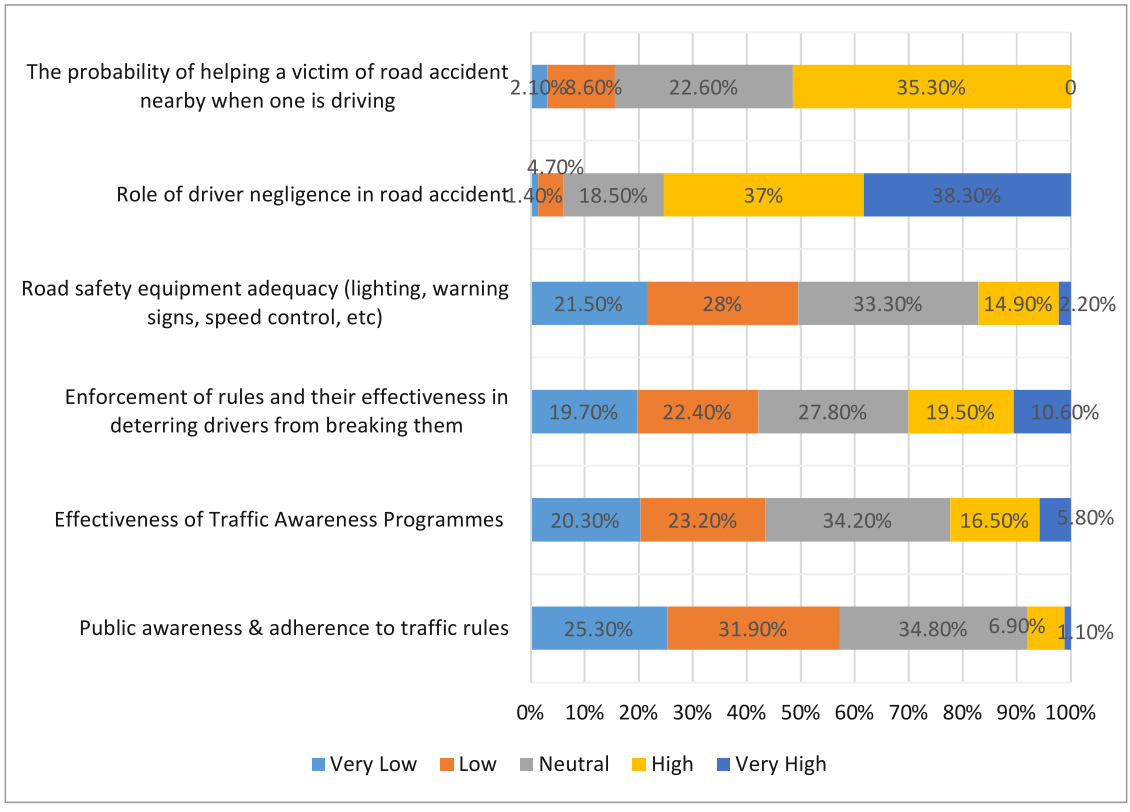
Figure 2: Mode of Transport



It can be observed that out of 1067 respondents, half of them used a self-driven car and 23.5 per cent of respondents made use of two-wheelers to commute. This also reflected the trend largely observed in Mumbai.

Road safety at Ghodbunder Road was an area of concern for all the citizens residing in the vicinity. Figure 3 shows the perceptions about road safety at Ghodbunder Road among the residents of Hiranandani Estate.

Figure 3: Perceptions about Road Safety



Based on the above figure it can be observed that the data points in the online questionnaire focussed on the 4E framework. Respondents gave feedback about their perceptions on questions about Education, Enforcement, Engineering and Emergency Response.

5.1. Perception - Awareness of Traffic Rules:

Figure 3 reflects that more than half of the respondents felt that there was low awareness and adherence to traffic rules. They perceived that there was low education among the public about traffic rules which also impacted adherence to the same. From the total sample, only eight per cent of respondents felt that the commuters of Ghodbunder Road had a high level of awareness about traffic rules. 50 per cent of these respondents were in the working-age group of 31 to 45 years who used a four-wheeler or two-wheeler for the daily commute.

When inquired about the perception regarding the effectiveness of the Traffic Awareness Programmes (TAPs), it was observed that 43 per cent of respondents were highly dissatisfied with the effectiveness of TAP organized by the Thane Traffic Police. Three-fourth of the respondents were not sure of what is TAP and hence neutral response was assigned.

During the FGD, one of the respondents' shared that *"short term traffic awareness events such as TAPs are not effective. Sustained efforts are required for road safety education".* More than 50 per cent of participants believed that TAPs should be conducted on traffic signals to have higher attendance and increased visibility. They believed that it will ensure positive outcomes in driving behaviour.

The interviews with traffic police resonated with the opinion of survey respondents as they observed limited awareness about traffic rules among citizens. One of the respondents shared that, *"In most cases, citizens interpret rules as per their wish or they simply do not care about them"*. Interviews also revealed that traffic police conduct awareness sessions on a small scale at schools, colleges, and local festivals to facilitate behavioural change among citizens. However, these small-scale events were not successful to create a noticeable change in driving behaviour. They believed that the TAPs conducted by the traffic police department with the help of commissioners, celebrities, and citizens facilitated a slight improvement in adherence to traffic rules and regulations by the drivers on Ghodbunder Road. One of the officials shared, "*As police department is overburdened, they are not able to conduct many awareness programmes*".

Interviews also revealed that traffic police conduct awareness sessions on a small scale at schools, colleges, and local festivals to facilitate behavioural change among citizens. However, these small-scale events were not successful to create a noticeable change in driving behaviour.

5.2. Perception - Enforcement of Traffic Rules:

When enquired about enforcement of traffic rules on Ghodbunder Road and their effectiveness in deterrence from breaking traffic rules mixed response was gathered. 42 per cent of respondents indicated marginal effectiveness of enforcement of traffic rules. One-third of respondents felt that the traffic police did a great job of enforcing traffic rules despite being understaffed and overworked.

Majority of the participants in FGD attributed poor enforcement of traffic rules due to corrupt practices adopted by the traffic cops. To ensure road safety and vehicular discipline the respondents

recommended the placement of more police officials at junctions. According to them, the presence of traffic police would act as a deterrent to the rule-breaking behaviour. Superintendent of Traffic Police (SP) stated that *"there is ongoing surveillance throughout the day by three officers, 34 traffic control policemen and additional wardens. Despite the arrangement, there is a need to involve more authorities. Their coordinated effort shall strengthen the enforcement protocol".*

5.3. Perception - Road (Traffic) Safety:

Figure 3 indicates that almost half of the respondents were dissatisfied with the road safety measures undertaken pertaining to lane markings, warning signs, speed controls, street lights and traffic lights at Ghodbunder Road. Similar sentiments were reiterated during the FGD. Respondents seemed stressed about the traffic safety conditions at Ghodbunder Road. They shared that, as traffic lights were switched off during the early morning and late-night hours, the drivers had to drive based on sheer judgment. There were certain areas on the road which were accident-prone posing a high risk to pedestrians.

Discussion with the traffic police personnel indicated that lack of coordination between the authorities majorly impacted the structural engineering of the road. One of the police personnel shared*, "Road construction and maintenance involves different departments making it difficult to coordinate".* He further added, "*Due to the ongoing construction work of setting up a Metro line, old signages are either removed or not visible and the accessibility has been impacted. There is a need to replace signages".*

5.4. Perception – Driver Negligence:

It was found that 75 per cent of respondents believed 'driver negligence' to be the major cause of road accidents. During FGD participants reiterated that irresponsible drivers were the major cause of accidents due to in-discipline and rash driving. In their opinion, 50 per cent of accidents could be avoided if drivers were educated about traffic rules.

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5.5. Perception – Emergency Response:

It was heartening to know that 67 per cent of respondents indicated a willingness to support road accident victims. FGD reflected the participants' view about the commuters' behaviour being lackadaisical towards making efforts to save accident victims. The reasons stated by them ranged from lack of time, lack of concern, or in some cases fear of being dragged in police cases and further inquiries. The traffic police interviews affirmed this as they had observed that people often drove off ignoring the road accident victim. One of the respondents shared that, *"People expect the police to be present everywhere and to immediately appear on the accident spot. This is often not the case as receiving information about an accident and then reaching the accident spot requires a few minutes. This loss of time may pose life-threatening risks to the victim"*. Traffic police were of the view that people must be proactive in case of an emergency. They should not fear the police inquiries as it is a part of the protocol to identify facts. The public should not consider it as a form of harassment.

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5.6. Road Safety: Best practices

To incorporate best practices of road safety at Ghodbunder Road, the literature on road safety was extensively reviewed. Accordingly, the models displayed in Table 1 were found to be distinct. It was felt that some of the best practices evident in the model could be easily adapted to attain the objective of 'Zero Accidents at Ghodbunder Road' project.

Table 1: Road Safety – Best Practices

Name of the Initiative	Location	Stakeholders involved	Best Practice	Outcome
Tamil Nadu Road Safety Model *(Launched in 2019)*	Tamil Nadu	State's police department, health department, transport department and the highways department.	Use of Data Analytics to map accident-prone spots in the State. Ambulances and Tamil Nadu Accident & Emergency Care Initiative (TAEI) centers were stationed at these hotspots to provide emergency care.	The decline of road accident deaths by up to 25 per cent in the year 2018.
Zero Fatality Corridor (ZFC) (Launched in 2016)	Mumbai-Pune Expressway (MPEW)	Save Life Foundation (SLF), Mahindra & Mahindra, Maharashtra State Road Development Corporation (MSRDC) and Maharashtra Highway Police.	A 360-degree road safety model incorporating the 4 E's of Road Safety - Engineering, Enforcement, Emergency Care and Education. A safe system approach to road engineering and design: enforcement of road safety through technology establishing a "Chain of survival" by improving the quality of emergency care provided to the road crash victims and conducting education campaigns.	The severity of crashes reduced from 53.3 per cent in 2016 to 24.8 per cent in 2019.
S-Miles: Safety for Miles (Launched in 2014)	Thane – Pokhran Road	Rnisarg Foundation, Schools, Housing societies, auto-rickshaw drivers, Thane Municipal Transport (TMT) bus drivers and riders using two-wheelers.	Road safety education provided through adoption of monological (posters/hoardings) and dialogic communication strategies (interactive sessions/street plays/open forums), to educate citizens, students, parents, auto-rickshaw drivers, TMT bus drivers, two-wheeler riders and housing societies.	S-Miles' focus was to impact the behaviour of citizens through their children. This served a dual purpose, educating the future generations and influencing their families through them.

6. Discussion

Road safety is an issue, a challenge, and a necessity for society. The internship provided exposure to understand how road safety is a very complex mission to achieve. To meet the transportation needs of the growing population in urban areas like Ghodbandar in Thane District construction activities like the development of flyovers, roads and metros have been undertaken. Unfortunately, this had added to increased levels of traffic congestion on the existing roads and resulting in increased road accidents. In this context, the “Zero Accidents on Ghodbunder Road” project is an effort to promote stakeholder dialogue for promoting road safety and a step in the direction of creating safe cities.

The literature reviewed on road safety in India indicated various efforts taken by the government to reduce road accidents. While reviewing the National Road Safety Policy 2010 it was found that though the policy specifies the roles, responsibilities, plans and campaigns to be undertaken by the Government to improve road safety, the execution is poor. For instance, in Maharashtra, there is poor coordination observed between multiple agencies like Municipal corporation, MSRDC and other authorities involved in constructing roads, bridges, flyovers and other traffic infrastructure.

While reviewing the National Road Safety Policy 2010 it was found that though the policy specifies the roles, responsibilities, plans and campaigns to be undertaken by the Government to improve road safety, the execution is poor.

Road safety campaigns and initiatives carried out by the government and NGOs often fail due to lack of enforcement of traffic laws and poor clarity related to accountability measures in case of any mishap. The mission for achieving zero road accidents cannot be driven solely by the government. It requires equal commitment and efforts from all the stakeholders and majorly from the citizens and the officials working in various government departments connected with road transport.

To attain the target of 'Zero Accidents', significant investments should be made in various aspects of road safety. From an engineering perspective, road safety is dependent on various

stages of construction and hence due diligence should be practiced to ensure quality construction of various types of roads like highways, expressways, state roads and other roads to prevent accidents due to poor quality of construction and maintenance. Good road infrastructure is an integral part of creating Sustainable Cities and Communities (SDG 11).

Though human failure is responsible for accidents, there is a lot of potential to improve road safety to avoid accidents. At regular intervals, road safety audits should be carried out to detect faults and rectify the same immediately.

To reduce road fatalities and ensure the safety of the pedestrians there is a need to design better traffic management by deploying traffic segregation measures. Coupled with this to enable drivers to drive safely, installation and maintenance of traffic signages are vital. It ensures compliance with traffic regulation, provides clear visual guidance, alerts drivers from any potential hazards and assists commuters and pedestrians at night.

Despite having good road infrastructure accidents can occur due to the casual attitude of road users and their lack of discipline in maintaining road safety. Apart from blaming authorities, there is a need to create a culture of safety by abiding traffic rules. It was evident from the FGD that in general people do not appreciate defying traffic rules, but in a city like Mumbai, usually, there is traffic congestion, there are several barriers like pot-holes, metro construction, illegal parking, which compel commuters to break traffic rules due to their personal and professional priorities. As there is poor penalization for breach of traffic rules, the culture of breaking traffic rules is prevalent. The only way things will collectively improve if each commuter ensures behavioural change, values human life, respects and practices traffic rules. This transformation will only happen over time, but the efforts need to begin immediately.

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Reducing road injuries and accidental deaths shall enable in attaining SDG 3- Good health and Well-being. Specifically, SDG 3.6 indicates by 2020, to halve the number of global deaths and injuries from road traffic accidents. In this context civilians and NGOs like GEF have a great potential in creating a culture of safety by forming civilian action groups to take a lead in ensuring the maintenance of road infrastructure and demanding immediate action from authorities to ensure compliance of traffic rules. This calls for continuous dialogue with various government officials, political representatives, NGOs, and other stakeholders. Ensuring zero accidents is very optimistic as there can be any force majeure activity. Nevertheless, such initiatives can assist in reducing human errors and control lackadaisical attitude of authorities.

Report Launch: 'Zero Accidents at Ghodbunder Road'

7. Conclusion & Recommendation

It can be surmised from the above discussion that there are loopholes in the entire traffic and road management system leading to road accidents and fatalities. NGOs like GEF promote stakeholder dialogue for promoting road safety and are instrumental in creating safe cities. Based on the primary and secondary analysis, as a part of the deliverable to the NGO, a set of recommendations were offered. The recommendations based on 4 E framework were drafted after detailed discussions and validation from safety experts. The same are elucidated below:

7.1. Education:

Multiple touchpoints should be created where the concept of road safety is reinforced among citizens. Besides road safety training in educational institutions, social media platforms should be used to conduct digital campaigns. Road safety should be an important part of corporate training.

7.2. Engineering:

Departments responsible for factors associated with road safety should be activated and appraised monthly. For instance, Maharashtra State Road Development Corporation Limited (MSRDCL) responsible for critical road engineering factors such as road illumination, lane markings, signages and road bitumen quality to ensure better traction should be monitored regularly. The Thane Municipal Corporation (TMC) must increase the effectiveness of the service roads by maintaining it and avoid cluttering it with waste materials. The construction of speed breakers should be based on globally set standards.

7.3. Enforcement:

To ensure that proper rules are being followed, enforcement is necessary. RTO can implement a few actions to have road safety in check. For instance, it can implement an up-gradation programme for license and be stringent while issuing a license; it can introduce simulation for conducting tests which will remove the subjectivity of RTO officer while issuing licenses; it can outsource the license issuing process which will lead to increased efficiency. The Traffic Department can do constant monitoring through appropriately installed CCTVs.

7.4. Other Recommendations:

Vehicle manufacturers should provide adequate security measures in each category of vehicle. High standards of vehicle safety, mechanical safety and load stability should be maintained by all vehicle manufacturers, especially trucks and buses. They should undertake responsible advertising while showcasing speed as the strength of their vehicles. Security features of the vehicle should be highlighted along with the message to use the vehicle carefully on the roads. The media should play the role of a mediator and host dialogues between the users and the authorities. A digital platform should be created by the State's Traffic Department to facilitate reporting of complaints/ concerns and best practices. The data should be diverted to concerned departments for speedy action.

Vehicle manufacturers should provide adequate security measures in each category of vehicle. High standards of vehicle safety, mechanical safety and load stability should be maintained by all vehicle manufacturers, especially trucks and buses.

Safe cities cannot be created without transforming our perspectives towards safety and bringing behavioural change in adhering to traffic rules. Achieving zero accidents is perhaps a very aspirational thought, but if it gets implemented even partially, it will create a great impact and save human life.

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Section III

This section focuses on SDG 8 i.e. 'Decent Work and Opportunities for Economic Growth' for marginalized sections of the community. By examining the issues of trafficked women and urban poor, the articles provide recommendations to upscale existing efforts by the Government and NGOs via public private partnerships.

Empowering Trafficked Women – Case of Swift Wash

Abstract: *Human trafficking has been a critical issue in India as the country is both destination and source of trafficking. To curb this menace both Government, as well as NGOs across different states, are striving to make their efforts in preventing trafficking as well as rescuing and rehabilitating the victims. Anyay Rahit Zindagi (ARZ) a leading NGO in Goa works towards restoring the Right to Decent Livelihood (SDG 8) and thereby attempting to Reduce Economic and Social Inequity and Promoting Social Inclusion (SDG10). To attain this ARZ in 2006 launched a for-profit social enterprise- Swift Wash to train trafficked victims in managing laundry business and earn a dignified livelihood.*

The current article attempts to examine the operational model of Swift Wash and identifies ways of cost-saving to attain financial sustainability for the business. The article also explores expansion strategies for Swift Wash and identifies alternate livelihood opportunities to ensure dignified living for rescued women. The paper underscores the need for gender sensitization to reduce trafficking by providing sex education at schools and facilitate the reintegration of victims through collaborative partnerships and prevent women from being pushed back to the sex trade. The paper is an outcome of Ms. Vaishali Lakhani's 'We Care: Civic Engagement' internship with Anyay Rahit Zindagi in February 2020.

1. Introduction

Around 25 million people are trafficked across the globe (Trafficking in Persons Report, 2019) making human trafficking is a complex crime that occurs in various forms across the world (Migrationdataportal.org, 2020).

The Trafficking Victims Protection Act of 2000, (TVPA) passed in the United States, defines “severe forms of trafficking in persons” as sex trafficking in which a commercial sex act is induced by force, fraud, or coercion, or in which the person induced to perform such an act has not attained 18 years of age; or the recruitment, harbouring, transportation, provision, or obtaining of a person for labour or services, through the use of force, fraud, or coercion for subjection to involuntary servitude, peonage, debt bondage, or slavery (Trafficking in Persons Report, 2019). People become victims of trafficking due to economic and socio-cultural reasons like poverty, unemployment, domestic violence, deception, coercion, and so on (Anti-Slavery, n.d.).

Child trafficking is linked to poverty and the demand for cheap labour. Children are forced into slavery, domestic labour, sexual exploitation, drug couriering, and at times are turned into child soldiers (Endslaverynow.org, n.d.). According to the United Nations Office on Drugs and Crime (UNODC), Global Report on Trafficking in Persons, 30 percent of human trafficking victims are children (United Nations Office on Drugs and Crime, n.d.).

According to International Organization for Migration's (IOM) Human Trafficking Global Database, 2017, from 2005 to 2016 the highest numbers of identified victims of human trafficking were women followed by men, boys, and girls who were majorly below 26 years. 70 per cent to 80 per cent of the times, women and girls were trafficked for sex trafficking (UNODC, 2018). These trafficked women are forced into commercial sexual acts such as prostitution, pornography, and sexual performance in exchange for monetary benefits and access to drugs. Besides women, children too are sexually exploited. ILO (2015) defines the Commercial Sexual Exploitation of Children (CSEC). “The child is treated as a sexual object and as a commercial object. Commercial sexual exploitation is a booming industry across the globe (Sharedhope.org, n.d.). As per ILO, more than one million children are trafficked each year for commercial sex trade (Swarens, 2018). Human trafficking is a flourishing multi-million dollar industry globally (Kerr, 2018).

Due to illiteracy and cultural factors, girls lack the confidence to speak up and hence are exploited. Often men who are unemployed end up using women's bodies to earn a livelihood. The trafficked victims lack emotional support from the larger society and hence are highly marginalized.

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1.1. Human Trafficking in India:

Human trafficking affects 20-65 million people in India (Dianova International, 2019). “India is a source, transit and destination for

human trafficking" (UNODC.org, 2018). Women and children from various locations such as Nepal, Bangladesh, Europe, Central Asia, Africa are subject to sex trafficking in India (United States Department of State, 2018). "NCRB data shows that sexual exploitation for prostitution is the second major purpose for human trafficking in India, after forced labour" (Sen, 2019).

Women and girls are lured using false promises of employment by unregulated placement agencies or marriage within the country or in the Gulf States and are then forced into prostitution. Sometimes women are also forced to conceive and deliver babies for sale. Often Indian and Nepali girls are recruited as 'orchestra dancers' to perform at public functions and gradually absorbed in sex trafficking. Online technology is employed by traffickers to facilitate sex trafficking and fraudulent enrolment. There are cases of corrupt law enforcement officers who safeguard suspected traffickers and brothel owners making it difficult for the victims to rescue themselves. Apart from traditional red-light districts, dance bars, spas, and massage parlors, sex trafficking is practiced in hotels, private residences, and vehicles (Trafficking in Persons Report, 2019).

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According to the NCRB data, from 2011 to 2019 there were 38,503 victims of human trafficking in India (Dhar, 2020). UNODC Global report 2018 on trafficking indicates that 35 per cent of the victims trafficked for forced labor were women (Tripathi, 2020). According to the Crime in India Report 2018, 2465 registered cases of human trafficking were registered in the year. The highest number of cases were reported in Jharkhand followed by Maharashtra, Assam, Telangana, Andhra Pradesh, and West Bengal. Across the country, 64 perc ent of the trafficked victims were women. 36 per cent of all the trafficked cases were for sexual exploitation - prostitution. Police officials indicate that the actual number of sex trafficking victims may be higher as very few cases were reported (Bhalla, 2017). Goa is one of the states that is infected by this crime (Goan Observer, 2019).

1.1.1 Human Trafficking in Goa:

The core purpose of trafficking in Goa is prostitution (NCRB, 2018). The girls/women brought to Goa are mostly the ones who have been exploited for a long time in various parts of the country or across the globe. Most of them are in the age group of 21-30 years and belong to impoverished belts of Maharashtra, West Bengal, Delhi, Bangladesh, and other parts of Central Asia (Goan Observer, 2019)

During July 2014 to July 2019, around 15.8 per cent of the rescued girls from Goa were foreign nationals and the remaining were Indians. Out of the former, 41.8 per cent of the victims were from Bangladesh followed by Nepal, Uzbekistan, and other locations (Anyay Rahit Zindagi [ARZ], 2019). It is only when the girl accepts that there is no way out for her and is willingly ready to get in commercial sexual exploitation, she is moved to Goa. There have been cases of re-trafficking of the rescued victims too which account for 6.3 percent of the cases (ARZ, 2019).

1.2. Rehabilitation: Measures by Indian Government

In India, sex trafficking is a criminal offense under Article 23 of the Constitution of India, Immoral Traffic (Prevention) Act, 1956 (ITPA), and the Indian Penal Code (IPC). “Although sex work is not illegal according to the ITPA, supporting activities such as maintenance of brothels or soliciting customers are punishable offenses” (Sethia, 2018). The Act does not prevent sex trafficking, but it mandates that victims rescued from the sex trade remain within a 'protective home' until the court orders their release.

To prevent human trafficking Anti Trafficking Cell (ATC) has been set up in the Ministry of Home Affairs (MHA) in 2006. Advisories have been issued by MHA from 2009 to 2015 to effectively tackle issues about the crime of human trafficking. Criminal Law (Amendment) Act, 2013 has been enforced to counter the menace of human trafficking. Protection of Children from Sexual Offences (POCSO) Act, 2012 has been passed to protect children from sexual abuse (Mea.gov.in, n.d.).

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To develop capacities of caregivers at government-run shelter homes National Institute of Mental Health and Neuro Sciences, in collaboration with UNODC, conducts training on issues of self-esteem and emotional intelligence both for rescued women as well as the staff. Family counselling has been introduced in the women's home so that rescued women's reintegration within the family and society is easier (United States Department of State, 2018).

The Trafficking of Persons (Prevention, protection, and rehabilitation) Bill, 2018 has been approved by the Parliament. It aims at criminalizing aggravated forms of trafficking (Asia Times, 2020) and emphasizes the establishment of investigation and rehabilitation authorities at the district, state, and national levels. It proposes to set up anti-trafficking units and nodal offices to oversee the process and coordinate for inter-state transfers. It requires the state or central government to set up protection homes to provide food, shelter, medical and, counseling services to the victims (PRS India, n.d.).

For effective implementation of the Bill, MHA has deployed an inter-ministerial coordination mechanism whereby it engages with the Ministry of Women and Child Development, Ministry of Labour and Employment, Protector of Emigrants, Ministry of External Affairs, and other stakeholders. The Government is also making use of technology to address various aspects of crime including human trafficking (PIB, 2019).

To supplement the efforts of the government for rehabilitation of rescued victims, NGOs Apne Aap, Arz, Jabala, Prajwala, Rescue Foundation, Sanlaap, and STOP Delhi, are engaged in providing medical assistance, counseling, psychological support, skill training family reintegration support, and other relevant activities. In Goa to combat commercial sexual exploitation (CSE) of women and rehabilitate victims of CSE Anyay Rahit Zindagi (ARZ) has played an important role.

2. About Anyay Rahit Zindagi (ARZ)

ARZ was incepted in 1997 by a group of development professionals from Tata Institute of Social Sciences, Bombay. It is registered under the Indian Societies Registration Act (1860), Bombay Trust Act (1950), and U/s 80 (G) of the Income Tax Act (Arz, n.d.). ARZ acts as the nodal NGO for the Integrated Anti-Human Trafficking Unit in the State. ARZ liaises with the neighboring districts of Maharashtra, Karnataka, Andhra Pradesh, Tamil Nadu, West Bengal, and Orissa. It also provides rehabilitation services to the victims present at the State Protective Home, Goa since 2001.

The organization's key functioning areas include prevention, protection, rescue, repatriation, rehabilitation, health care, after-care, re-integration, legal counseling, economic rehabilitation, research & documentation, prosecution of perpetrators, training, and advocacy.

Specific programs are offered in the area of self-development, legal and counseling services for rescued victims, rehabilitation of inmates of Sada jail in Vasco, and training to the police in the area of rescue programs and prosecution of criminals. 'Wish' an initiative of ARZ aims at economically empowering rescued victims by offering vocational training. One of the major initiatives under Wish has been the creation of Swift Wash – a commercial laundry service (Arz, n.d.).

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2.1. Swift Wash:

Launched in 2006, Swift Wash is registered as a small scale industry and is a member of the Goa Chamber of Commerce and Industry. Rescued victims of sex trafficking and their family members are trained on the job in the areas of collection, washing, ironing, and delivery of linen (Navhindtimes.in, 2015). Some trainees are provided employment opportunities at Swift Wash (Arzindia.org, 2008).

Currently, Swift Wash has around 13 to 15 permanent employees who earn a fixed salary and enjoy social security benefits such as Employee State Insurance (ESI) and Provident Fund (PF). However, there would be fluctuations in the number as the women may leave or join due to various circumstances. The laundry also offers other welfare benefits such as an in-house crèche, transport facilities, an anti-sexual harassment committee, psychological counseling, and opportunities for recreation and entertainment (Arzindia.org, 2008).

Since its inception around 600 women have benefitted through the project. On completion of the professional training at the laundry and gaining work experience, beneficiaries have the freedom to either move out to find other opportunities or continue to work at Swift Wash.

Traditional Laundry Drying Techniques

3. Project Focus

Swift Wash is a for-profit social enterprise set up by ARZ, with the primary objective of creating social impact by providing employment opportunities for rescued women and attain financial sustainability. While Swift Wash has been successful in creating social impact, its financial sustainability has been an area of concern. To attain a balance between social impact and financial sustainability there is a need to realign Swift Wash's business model.

Besides, ARZ faced a challenge of rehabilitating rescued victims who wished to migrate from Goa and settle elsewhere. To strengthen their capacities, options for dignified livelihood, and prevent them from re-entering the sex trade, ARZ aspires to partner with other organizations and explore livelihood opportunities in the other States of India in the area of commercial laundry or other economic activities. In this context, the We Care intern was assigned the task of designing strategies to convert Swift Wash into a profitable business model and identify additional livelihood support activities for the rescued victims within and outside Goa. Objectives of the assignment were as follows:

- To identify ways to achieve cost-saving and attain financial sustainability at Swift Wash.
- To explore opportunities for the establishment of Swift Wash in Siliguri, West Bengal – a source state.
- To find alternate livelihood support activities for the rescued victims.

4. Methodology

To attain the objective of cost-saving and financial sustainability at Swift Wash, processes undertaken at the laundry were studied in detail through visual observations and personal interviews. Three women respondents at the supervisory levels were interviewed using an interview guide having questions about, a) daily routine at the laundry, b) flow of operations at the facility, c) client wise laundry load analysis and its frequency, and d) machines used for different types of laundry received. Rest of the women working at the laundry were also interviewed to understand two crucial data points: a) awareness about different machinery utilized in the laundry and b) liking towards the tasks performed to understand the level of motivation.

Based on examining the processes undertaken at a laundry, income, and expenditure statements were reviewed to scrutinize major expense heads existing in the current operations. Data about possible clients offering bulk business was collated through the Goa Industrial Development Corporation website and internet search based on criteria developed during discussions with the Swift Wash team. Eight prospective clients were shortlisted based on a) proximity to the laundry, b) type of linen, c) order quantity, d) the number of employees, and d) pick up time.

To attain the objective of exploring opportunities for the establishment of Swift Wash in Siliguri, West Bengal, secondary research was undertaken to collate data about: a) current and future laundry requirement, b) type of laundry, c) current service providers, and d) staff requirement in case of in-house laundry present. Information on these data points was also obtained through telephonic interviews with either the housekeeping department or the managers of the hotel. 21 telephonic interviews were conducted.

To find alternate livelihood support activities for the rescued victims, secondary research was conducted to gather data about, a) types of occupation available in the state and b) existing gaps in the identified occupations. Exploring existing occupations as a source of livelihood provided necessary insights about its feasibility as a source of economic rehabilitation for the rescued victims.

Gathered data were analyzed using Microsoft Excel and the content analysis technique. Findings were utilized to develop a model for increasing the profitability of existing Swift Wash set up in Goa, identify possible partnering agencies in Siliguri, and develop alternative sources of income.

5. Findings

5.1. Cost-Saving and Maximising Profits at Swift Wash:

In alignment with the objective of cost-saving at Swift Wash to attain financial sustainability, the profit and loss statements were studied. For assessment of the expenditure, attention was laid upon identifying the major cost centers. All the items incurring an outflow of greater than five percent of the overall outlay during three quarters of FY 2019-20 i.e. April to June (Q1), July to September (Q2), and October to December (Q3) were focussed upon. See Table 1.

Table 1: Quarter-wise Cost Centres at Swift Wash (April to December 2019)

Expenses	April to June (Q1)	July to September (Q2)	October to December (Q3)
Working Unit Rental	14%	13%	13%
Electricity	10%	10%	11%
Petrol (For machine operations)	15%	19%	11%
Chemicals	9%	8%	5%`
Maintenance and Civil Work	2%	3%	9%
Auto-rickshaw Rental	13%	12%	7%
Salaries for Beneficiaries	37%	41%	37%
Total	**120%**	**129%**	**115%**

Source: Collated by Author

Discussions with the supervisors revealed that ARZ had tried some of the cost-saving options in the past 2-3 months which yielded positive outcomes on the monthly profit and loss statements. The options used by them included: a) using a natural source of heat i.e. sunlight to dry laundry and b) shifting to fuel-efficient low-power machines to carry out laundry operations enabling them to save fuel and electricity.

Though all the women did all the tasks in the laundry on a rotational basis, those which showcased the required capabilities were chosen to be trained to be supervisors and had the additional responsibility of guiding other employees and managing the laundry. Personal interviews with these women respondents revealed that lack of interest, coupled with inappropriate knowledge about chemical and equipment usage also led to increased expenditure. Beneficiaries by and large were ignorant about the total functional capacity of the machines. This hampered their ability to run operations at full capacity.

Washers and Dryers at Swift Wash

Ironing Machine at Swift Wash

Observations at the laundry also helped to identify idle machine time. As optimal machine utilization could aid in converting Swift Wash to a profitable business model, a capacity analysis was undertaken. Table 2 presents the capacity analysis of Swift Wash Laundry.

Table 2: Capacity Analysis of Swift Wash Laundry – Per Day

Parameter	Quantity	Unit
Max. Working Period	15	Hours
Max. Load	1200	Kg
Current Average Load	697.52	Kg
Efficiency at Average Load	58.13	%

Source: Collated by Author

The laundry had two machines which had a capacity of handling 45 kg and 35 kg load respectively. If the machines would be operational for 15 hours on each working day, the maximum load that could be handled would be 1200 kg.

Based on the one week of observations made by the intern the average per day load handled was found to be 697.5 kg. Hence, the current efficiency of the laundry operations was found to be 58.13 percent. To make optimum utilization of the machines, it was decided to redesign the operational model of the laundry and enhance the revenue and scale up its social impact.

The Swift Wash project was initiated with the core objective of rehabilitating trafficked women and enabling them to earn a dignified livelihood. Hence, it was essential to prioritize this aspect and not compromise on it while attaining financial sustainability through the proposed redesign option. Besides, while allocating extra hours to scale up the functionality of the laundry, contingencies like machine failure, a spill over of laundry from the previous day, delays in receiving laundry operations, and other unforeseen eventualities had to be borne in mind. After brainstorming with the staff and management of Swift Wash, it was decided to increase the machine operations by three hours. Every additional hour would increase the capacity of machines to handle the load of 80 kg per hour, thus the additional three hours would handle 240 kg of additional laundry per day.

Based on the above calculations the efficiency of the laundry would increase from 58.13 percent to 78.12 percent and hence is projected to increase the revenue by 25 percent. This additional revenue could be attained, provided appropriate clients were sourced based on their strategic alignment with Swift Wash's mission and understanding of the resource constraints like the type of laundry and distance from the facility.

Training on Cost Management & Communication

5.2. Scaling Up Swift Wash - Goa & Siliguri:

To identify appropriate clients for enhancing the revenue of Swift Wash secondary and primary research was undertaken. Accordingly, a list of almost 500 companies was derived from the Goa Industrial Development Corporation's website. To bring a strategic alignment in the requirements of Swift Wash 70 companies were shortlisted and were approached. Detailed interactions helped in identifying eight prospective clients, one of them matching all the criteria set by Swift Wash. It was decided to conduct personal meetings with all these companies by the management of Swift Wash to formalize the business deal.

As some of ARZ's beneficiaries preferred to return to their place of origin or migrate to other locations in India, it also felt the need to expand the operations of Swift Wash to other states. To begin with, ARZ considered expanding its rehabilitation efforts in Siliguri in West Bengal as it was the place of origin for most women rescued by ARZ. To suit the laundry requirement of

Swift Wash, a list of hotels in Siliguri and Bagdogra was extracted. Telephonic interviews with 21 hotels aided in identifying hotels that were in the phase of expansion. Assuming their requirement of new dealers in the laundry business, the idea of tying up with Swift Wash was pitched. Potential vacancies in their in-house laundries were also explored to enable beneficiaries to lead a dignified life. In this context, Marriott Hotels, Siliguri was approached. In the absence of vacancies, they offered to guide ARZ by giving a tour of their laundry and explain its functioning, aiding them to optimize the profits at Swift Wash.

5.3. Alternative Livelihood Support Activities:

The management of Swift Wash felt that it was not in a position to accommodate the rehabilitation requirement of all the rescued women and all the beneficiaries' interest too is not in alignment with the laundry business. In this context, ARZ felt the need to identify job opportunities in the market which could economically empower its beneficiaries within and outside Goa. The secondary research in this regard indicated the possibility of job opportunities in the logistics and supply chain management. To avail the same, the beneficiaries of ARZ could be trained in developing skillsets required for managing tasks related to warehouse, inventory, purchase, dispatch, and customer care. With the growth of health & wellness, cosmetic, hospitality, and handicraft industry, women could be trained to obtain various job opportunities at wellness clinics, beauty parlours, home cleaning centers, local enterprises engaged in marketing handicrafts, or promote self-employment through aggregator models like Urban Clap. As Urban Clap did not offer services in Goa, ARZ could explore setting up an aggregator model through partnerships and seize the untapped opportunities. Considering the growth of the fast-food industry, with adequate ecosystem support and training women could be trained to manage mobile food kiosks/carts. ARZ's management was aware that the alternative economic empowerment model would need partnership support from local NGOs, businesses, and governments.

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6. Discussion

The experience at Swift Wash was very enriching and grounding. Despite sex trafficking being a criminal offense in India, the practice is prevalent on a large scale. At ARZ the exposure aided in understanding the nuances of the trafficking business in Goa with a special focus on rehabilitation of trafficked victims to enable a dignified living. There was a realization that trafficking rackets can run in front of our eyes disguised in the form of daily activities. In such scenarios, the proactiveness of every member of the society is required. There are times when such unfortunate incidents can happen in the family itself, or through a known individual. Even after being rescued, trafficked women might become victims of various stereotypes that our society holds. This can make their journey towards self-independence even more difficult and discouraging to the extent that they might prefer being in the trafficking business. The stakeholders involved in the process of their transformation should be mindful of the judgment they portray towards these women.

The founder of ARZ understood the plight of the trafficked victims who face adverse moral, physical, and psychological trauma. The founder was aware that even after being rescued; trafficked women are subjected to further victimization and are pushed back into the sex trade. The realization of the fact that post-rescue operations, women need thorough guidance and support for social reintegration was the premise on which ARZ was setup. Today ARZ is one of the leading NGOs of the country that has been working towards breaking the cycle of exploitation by counseling and providing vocational training to trafficked women and enable them to earn a dignified livelihood. Through its Swift Wash programme, ARZ creates social value and contributes to the attainment of SDG 8 by restoring the right of decent livelihood of trafficked women. By enabling the social reintegration of trafficked women and creating sensitization in society, ARZ works towards reducing inequality and attaining SDG 10.

ARZ creates social value and contributes to the attainment of SDG 8 by restoring the Right of Decent Livelihood of trafficked women. By enabling the social reintegration of trafficked women and creating sensitization in society, ARZ works towards Reducing Inequality and attaining SDG 10.

The issue of trafficking is quite large and it cannot be addressed by ARZ and a couple of NGOs alone. The need of the hour is to educate girls and boys and imbibe values of gender sensitization at an early age. Parents and families should be sensitized about the importance of education and the ill-effects of trafficking on the child's future. To facilitate attitudinal change awareness should be generated in the society about equal opportunities for women, sexuality, and respect. This will aid in bringing about a sustainable change in society.

To rehabilitate trafficked women NGOs are making a lot of investment in vocational training. To enable the women to set up their enterprises these NGOs should also provide entrepreneurship training. The corporate world should take measures to safe guard women and through the CSR route invest in rehabilitating trafficked victims. Apart from having policies on the Prevention of Sexual Harassment (POSH) at the workplace corporates should also imbibe the same within the supply chain. They should provide employment opportunities to rescued women to ensure a dignified livelihood. They should be mindful of the background of these women and consider the opportunities they provide with a sense of empathy and not treat them as usual. A small setback can affect their wounded minds, even more, thus affecting their productivity and ability to think clearly. CSR funds can be channelized for ensuring the rehabilitation of trafficked women.

To facilitate attitudinal change awareness should be generated in the society about equal opportunities for women, sexuality, and respect. This will aid in bringing about a sustainable change in society.

7. Conclusion & Recommendations

It can be concluded that while NGOs are making multiple efforts for rehabilitating trafficked women, more organizations are required to join hands to create desirable impacts as trafficking is interlinked across regions. NGO's need support in terms of resources and regulations from the government and society. Further, a mindset change is required to provide a safe and caring environment for the women, who are rescued, and who require mental nourishment. To achieve this, there is a need to generate awareness and educate the local community.

To scale down trafficking gender sensitization is a must. Sex education should be emphasized in schools with the support of NGOs to enable children to understand the difference between good touch and bad touch and sensitize other key stakeholders like school teachers, parents, and government officials. Government officers especially those who work directly with the rehabilitation of the trafficked women need more sensitization to enable them to understand the psychological impact of their conduct towards the rescued women.

The most important step is to address the issue of unemployment which pushes the economically constrained individuals to engage in illegal ways of earning. To create 'Aatmanirbhar Bharat' Government of India should engage in collaborative approaches and scale up the reach of universal education, skill development, and job creation.

To rehabilitate trafficked women, entrepreneurship training should be offered with specific inputs in the areas of procuring raw material, inventory management, costing & pricing, waste management, and other relevant areas. The private sector, NGOs, and academic institutions along with the Government can play a crucial role in creating a sustainable and conducive environment that provides an equal footing for women to ensure Decent Work & Economic Growth (SDG 8) and thereby Reduce Inequities in the society (SDG 10). Finally, a speedy process of justice should be established to save the rescued women from the trauma they undergo during the process of rehabilitation (SDG 16).

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City Livelihood Centre: A Hope for Urban Poor

Abstract: *Owing to the massive expansion and development in urban areas, it attracts a huge population from rural areas in search of livelihood opportunities. However, the rapid urbanization is forcing the migrants to settle in slums and struggle for basic amenities such as clean water, education, medical and social securities. The traditional gender disparity in the country restricts women from being actively employed to support the household financially further adding to their misery. To help the urban poor, the Ministry of Housing and Urban Affairs (MoHUA) initiated the concept of City Livelihood Centre (CLC), which is facilitated by NGOs. AWARD an NGO based in Kanpur is an implementing partner undertaking the operations of CLC Kanpur.*

The current paper highlights the operational problems associated with the CLC such as the inability to provide full-time employment to the service providers and poor marketing support to SHGs. The paper presents an action plan for reviving the operations and creation of a new modified CLC. Through the action plan, it is recommended to operate the CLC as a 'service on click' model by creating an app. For the development of SHGs, the creation of a marketing plan, robust inventory management, and creating a presence on e-commerce platforms is suggested. The article concludes with the analysis of pre-requisites to ensure the successful implementation of the action plan. This paper is an outcome of Ms. Shaily Kasaundhan's Wecare: Civic Engagement Internship in February 2020.

1. Introduction

1.1. Urbanization:

Urbanization is defined as the mass movement of population from rural to urban areas and the consequent social, cultural, and economic changes for the people. United Nations (UN) estimates that 4.2 billion people (more than the half of the world population) live in urban areas by 2041 and this number will increase to 6 billion people (Population.un.org, 2019). As cities and towns become centre of infrastructure, technology, jobs, and economic growth, the rate of migration is increasing for better livelihood, health and financial security (Usmani & Ahmad, 2018).

The urban population in India is 377.1 million with 2.76 per cent increase every year constituting 31.14 per cent urbanisation in the country (Census of India, 2011). About 34 per cent of India's population lives in urban areas of which 17 per cent urban poor live in slums

(United Nations, 2018). According to the Centre for Monitoring Indian Economy (CMIE), although the unemployment rate is falling in rural India, it is increasing in urban India (Ceicdata.com, 2020). Those who moved from village to cities to escape from rural poverty, end up being urban poor. Some states of India have a high proportion of urban poor (37.2 per cent) as compared to the rural poor (29 per cent) (Census of India, 2011). The unmatched rise in urban population with the urban infrastructure has led to a significant rise in economically and socially vulnerable urban habitats owing to poverty and unemployment.

1.2. Poverty & Unemployment:

The lure of urban living attracts a lot of migrants but the massive expenses for rented accommodation, utilities, food and travel often go unnoticed. According to Chaudhuri (2015), the increased rate of migration has led to a rise in the number of slums and squatter camps. A significant number of these slums are not recorded in official data, making them inaccessible to solicit government support. The economy is unable to provide them with employment and income to survive. Poverty forces the migrants to struggle for basic amenities such as potable water, sanitation & hygiene and security in slums as they live under a constant threat of eviction or confiscation of personal belongings (Ratan, 2016).

The increased rate of migration has led to a rise in the number of slums and squatter camps. A significant number of these slums are not recorded in official data, making them inaccessible to solicit government support.

Unemployment is both a cause and an effect of poverty. Owing to poor education and vocational skills, these migrants end up with no job or are employed in the informal sector having jobs of plumbing, gardening, driving, domestic help or hired as daily wage workers (Ratan, 2016). According to the World Bank, in December 2019, India's unemployment rate was 5.36 per cent and the country's labour force participation dropped to 49.29 per cent (Ceicdata.com, n.d.). In January 2020, the urban unemployment rate was 9.7 per cent due to the rising number of job seekers and inadequate jobs (CMIE, 2020).

1.3. Scenario of Uttar Pradesh:

Uttar Pradesh (UP), the most populous state of India, comprises of 16.6 per cent population and 22.27 per cent living in urban areas. It has 648 statuary towns and 267 census towns with 44.5 million people residing in urban areas. The unemployment rate in UP is 9.9 per cent which is more than the nation's average of 7.7 per cent. In urban areas, labour force participation rate (LFPR) is relatively low as compared to rural areas. In urban cities of UP, almost 60 per cent of households survive on the income of casual labour and self-employed people live in poverty (International Labour Organization [ILO], 2017). The LFPR of UP comprises of 82 per cent males and 25 per cent females in the age group of 15-59 years. Out of the total men employed, one-fourth worked as casual labourers while the remaining were employed in salaried jobs. However, in the case of women, 78 per cent of working women were self-employed and 15 per cent worked as casual labour largely for unpaid household works in agriculture (ILO, 2017, pp15-17). Due to social norms, families did not allow women to work. They are forced to live in unbearable situations of poor sanitation and domestic violence (ILO, 2017).

Unemployment rate in UP is 9.9 per cent which is more than the nation's average of 7.7 per cent. In urban areas, labour force participation rate (LFPR) is relatively low as compared to rural areas. In urban cities of UP, almost 60 per cent of households survive on the income of casual labour and self-employed people live in poverty.

According to the State Urban Development Agency (SUDA) (2019), Kanpur, a major industrial city of Uttar Pradesh has a population of 45 lakhs with almost nine per cent population growth rate. Due to a rapid increase in the population, the district is emphatically in need of employment generation. Even though the overall work participation rate in the district is higher than the state average, quality of the job is still questionable. The status of workforce participation of women in Kanpur was similar to the trend followed by the state (DUDA Kanpur, 2018). In the chain of informal activities done by urban poor, women are placed at the bottom, either not having any occupation or performing low paid activities. Being in a development phase, the Government of Uttar Pradesh has put in multiple efforts to raise the standard of living in Kanpur.

1.4. Government Measures:

To eradicate urban poverty, Government has launched multiple schemes such as Nehru Rozgar Yojana (1992), Prime Minister's Integrated Urban Poverty Eradication Programme (PM IUPEP) (1995), the Swarna Jayanti Shahari Rozgar Yojana (1997), the Urban Self Employment Programme (1997), the Jawaharlal Nehru National Urban Renewal Mission (2005), Prime Minister's Employment Generation Programme (2008), Rajiv Awas Yojana (2011) to name a few. The Ministry of Housing and Urban Affairs launched several schemes like Swachh Bharat Mission (2014), Pradhan Mantri Awas Yojna (2015), Deendayal Antyodaya Yojana - National Urban Livelihoods Mission (DAY-NULM) (2014).

Although various poverty reduction measures have been undertaken through social and economic development the pace is very slow (ILO, 2017). Thus multiple NGOs have come in the forefront such as Asha Gam Udyog Samiti, Arasa Vikas Sansthan, Aashirwad Welfare Society, Human Skill Development Institute, Darpan and so on.

Action for Women and Rural Development (AWARD) a leading NGO in Kanpur that works in coordination with the Ministry of Housing and Urban Affairs (MoHUA) and acts as an implementing partner for the implementation of its schemes related to skill development and employment generation such as the City Livelihood Centre.

1.5. City Livelihood Centre (CLC):

CLCs are established under the MoHUA for social mobilization of urban poor. It is a platform to provide vocational trainings, ensure employment opportunities, offer marketing services and access information about business support services (MoHUA, 2020). Originally, the CLC's were established and managed by Urban Local Bodies (ULB). Later their functioning was also outsourced to community based organizations (CBO). For setting up a CLC, a non-recurring grant of Rs. 10 lakh is provided to register, recruit staff and roll out services. Post establishment, the recurring expenses are borne by the CLC through a fee for service model (Ministry of Housing & Urban Poverty Alleviation, 2013).

City Livelihood Centre: Zone 5, Kanpur

Registration of Service Providers

2. About AWARD

AWARD was established in 1993 as a non-profit organization in Kanpur to uplift the underprivileged and marginalized sections of the society (Pandey, 1995). Since inception, AWARD has executed projects on livelihood promotion, urban poverty eradication and women empowerment in collaboration with corporate partners, national and international agencies. It has worked in close association with the government and British development agency while imparting skill trainings to Anganwadi workers and youth in the area of women and child health. During its journey of 27 years, AWARD has expanded its operations to 9 districts in Uttar Pradesh and impacted the lives of almost 1,000,000 people (Pandey, personal communication, Feb 18, 2020). To further enhance accessibility to livelihood opportunities in Kanpur, AWARD assumed the responsibility of managing the functions of City Livelihood Centre (CLC) in Zone -5 of Kanpur as an implementing partner in 2015.

Women engaged in Kite Making

Service Providers as Construction Labourers

2.1. CLC – Kanpur:

CLC Kanpur (Zone-5) was established in February 2015 through one-time financial support from District Urban Development Agency (DUDA) Nagar Nigam Kanpur under the DAY-NULM scheme. It was handed over to AWARD for facilitating its operations. At the CLC Kanpur, the job seekers are registered as service providers to avail jobs. Based on the availability of permanent or temporary jobs rolled out by the government or the private organisations' employment opportunities are offered to the registered service providers. The CLC Kanpur had registered 2000 service providers comprising of 1200 men and 800 women. As of February 2020, only 20 per cent of them were actively employed in jobs such as plumbing, driving, mechanic, household-help, caregiver and so on (AWARD, 2019). The rate of employment was dismal due to inappropriate demand and supply of manpower.

CLC Coordinator addressing the SHGs

Exhibition organized by CLC

Although the MoHUA is responsible to ensure job opportunities through local government departments the demand was sporadic and largely limited to single household requests or infrequent multi worker requests. Given the demand-supply gap, the Principal Secretary had notified all government departments to use labour registered at the CLC however, the demand for labour was less. Thus in absence of jobs in government offices or private companies, CLC Kanpur was largely able to offer jobs only on project basis resulting in lesser permanent positions (MoHUA, 2014). This severely impacted the registrations in turn hampering the revenue of CLC Kanpur.

To cater to the requirements of uneducated and unskilled women, CLC offers support to them via Self Help Groups (SHG). Formation of SHGs is facilitated via field workers and handholding support is provided to incubate ideas, offer skill trainings, facilitate access to government schemes and provide market opportunities (MoHUA, 2014). It was observed that the SHGs faced difficulties in marketing their products such as decorative items artificial jewellery, cutleries, snacks, pickles, and so on. Thus, CLC Kanpur Zone-5 aspired to develop a strong supply chain to facilitate an increase in sales and boost the income of SHGs.

DUDA office Kanpur

3. Project Focus

AWARD undertook the responsibility of managing CLC Kanpur Zone-5 in 2015. As the visibility of CLC was not prominent among the unemployed workers in Kanpur, it resulted in lesser number of registrations. Despite various efforts Award's team was not able to generate a sustainable market for SHG products. These issues collectively impacted the financial sustainability of CLC Kanpur. Award's team anticipated that its poor performance in managing the CLC could result in MoHUA, terminating its project partnership with AWARD.

In this context, the We Care intern was requested to conduct gap analysis in the implementation of CLC activities. The intern was required to suggest an action plan for revenue generation at CLC and develop profit-oriented business model for registered SHGs. To achieve the same the We Care intern worked on the following objectives:

- To study the operations of CLC Kanpur.
- To identify gaps in the implementation of activities of CLC Kanpur.
- To conduct a gap analysis for SHG products of CLC Kanpur.
- To develop an action plan for revenue generation at CLC Kanpur.

4. Methodology

The study being exploratory in nature gathered data from both primary and secondary sources. To study the operations of CLC Kanpur initially secondary research was undertaken. The secondary literature available at the organization such as proposed CLC project plan, annual report, registration records were accessed. Literature helped to study the trends in CLC registrations, occupation of registered beneficiaries, placement success rate, marketing strategy used, number of SHGs under the member NGOs and details about their micro-

enterprises. To study the conditions of urban poor and women, websites such as MoHUA, DAY-NULM, United Nations and Census statistics were accessed. Papers and journals such as 'Effectiveness of SHGs in Improving Livelihood Security and Gender Empowerment' by Sharma, Wason, Singh, Padaria, Sangeetha and Kumar (2014) and 'Livelihoods of the Urban Poor: Case of Varanasi City in Uttar Pradesh in India' by Keshav (2018) along with internal documents at the organization were studied to understand the NGOs' practices for livelihood creation and effectiveness of the efforts undertaken.

To identify the operational gaps at CLC Kanpur and the challenges faced by the SHGs, it was decided to undertake primary research. Organizational representatives, 25 CLC employment holders and 10 SHGs groups were covered under the study. Unstructured interviews were conducted with organizational representatives such as the founder of AWARD, operational head and two field executives based on the following data points: a) role of CLC for securing employment, b) types of jobs offered by the CLC, c) challenges faced by job seekers pre and post-employment by CLC, d) suggestions for system improvement, e) revenue generation model of AWARD and d) process of assigning project tenders.

Interviews were also conducted with the SHGs members and registered employment holders based on following data points: a) role of CLC for securing employment, b) types of jobs offered by the CLC, c) challenges faced by job seekers pre and post-employment, d) suggestions for system improvement.

With the support of the team at AWARD, Focus Group Discussions (FGD) were conducted with the SHGs to gather information on the following data points: a) details about their micro-enterprise, b) benefits of setting up an enterprise, c) challenges faced with regards to family, CLC, Bank or the Government departments.

The collated data was analysed with the help of descriptive statistics and content analysis technique to suggest improvements and develop an action plan for CLC Kanpur.

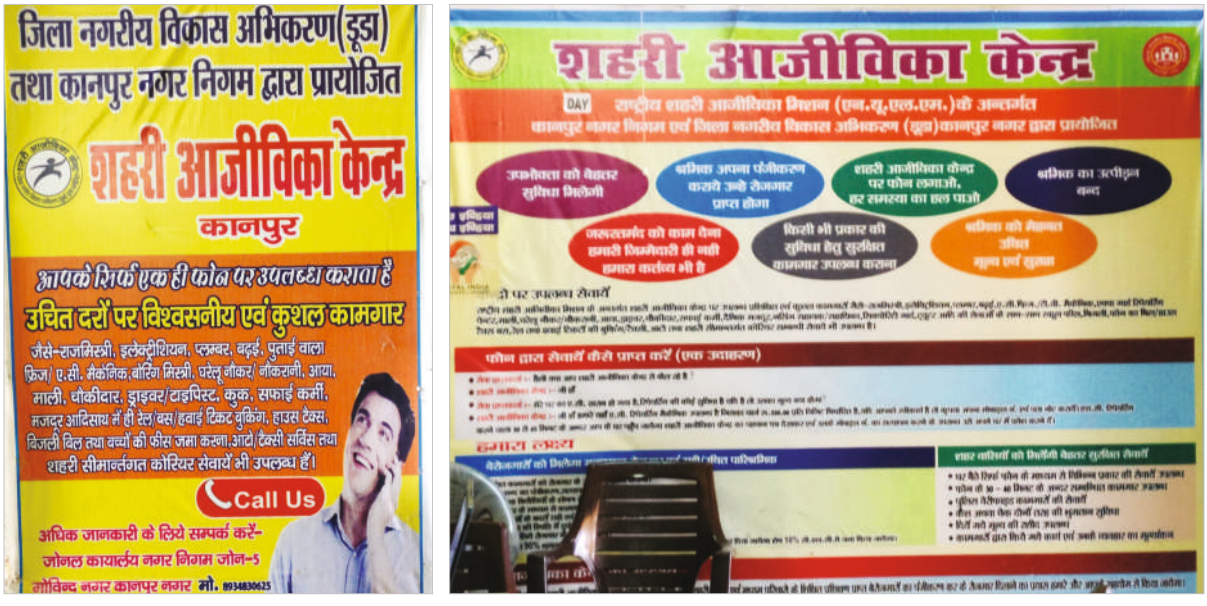
5. Findings

5.1. Operations: CLC Kanpur

AWARD placed registered service providers in government projects to fulfil their labour requirements. The process was facilitated with the help of DUDA and SUDA as they acted as coordinating bodies for both government and private projects. To provide these jobs, CLC adopted a fee for service model. They charged an amount of Rs. 100/- to register the service

providers by issuing a membership card with one-year validity. The annual registration fee was primarily utilized towards police verification and issue of identity cards to service providers. On placement of the service providers, the organization earned 10 per cent of the compensation as a service charge. This revenue aided in meeting administrative expenses of CLC. As per the proposed financial management plan for the CLCs, the earned income accrued by the third year would make CLC financially sustainable.

Besides the above activity AWARD also provided services in the areas of availing Aadhar card, Ration card, PAN card, Voter identification card, and insurance schemes on a fee for service model. The organization also receives fees from the Government for conducting health camps. The CLC premises are also rented out as shelter home to the homeless at a small fee. CLC Kanpur – Zone 5 runs the shelter home till date.



Advertisement Posters

5.2. Implementation Gaps at CLC:

In the start-up phase, apart from offering jobs in the government sector or private projects, CLC Kanpur also supplied skilled labour to individual households through a dedicated helpline number. They majorly supplied drivers, plumbers and electricians. However, with time the demand decreased considerably due to multiple issues faced by the organization.

As the customers were not willing to pay fixed visiting charges to the service providers, the labour was not attracted to the opportunities offered by the CLC. At the CLC, there was no policy for conducting a background check of the registered service providers causing trust issues

among customers. They did not train them on the required soft skills which lead to unprofessional behaviour. Due to lack of skills and required support, the CLC team was not able to cater to the requirements of the customers. Furthermore, CLC Kanpur lacked a system for customer tracking. The customers too were unable to track their service requests. All these collectively lead to customer dissatisfaction causing the system to collapse.

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5.2.1. Nature of Job:

The inability of CLC Kanpur Zone-5 to facilitate permanent jobs was a critical issue severely impacting their revenue. Most of the jobs offered were contractual or temporary in nature with an average of six months of joblessness in a year. This led to dissatisfaction and mistrust among the beneficiaries. The job seekers no longer considered CLC as a reliable medium to access permanent jobs.

As per the Government e-Marketplace (GeM) portal, a technology-driven platform for facilitating procurement of goods and services by various Ministries and Government agencies (India.gov.in, 2018), all human resource requirements for public procurement have to be processed through a common tender system. This has enabled private players, NGOs, CLCs and other such organizations to buy/win the tender or project using a common bidding system. As per the format of the GeM portal, the lowest bid was entitled to win the projects requiring human resource supply. As per rules, CLC was prohibited to hire or allocate labour a wage rate which was less than the applicable minimum wage of the area. This has acted as a limitation for the CLC because other private players are not bound by such a requirement. Private players normally manipulate the labour cost and are able to offer lowest bid. This has severely affected the likelihoods of the CLC winning the bids, due to which they are unable to offer better jobs for their service providers.

5.2.2. Marketing:

It was observed that CLC adopted an adhoc approach for marketing their services/products. The dominant sources of marketing comprised of print advertising via pamphlets and wall paintings. These failed to create an impression on the local households.

5.3. Services for SHG:

The SHGs linked with CLC Kanpur Zone-5 created products such as artificial jewellery making, pickles and masalas, home decor items, bindi making, Candle making, chips and other snacks etc.

5.3.1. Product Demand and Quality:

It was observed that the SHG members were unable to create high-quality products due to their limited knowledge about customer requirements and market trends. As a result, they did not attract a customer base in the retail market. In this context, the SHGs faced the threat of piling up stock irrespective of orders. For instance, for artificial jewellery designing, SHGs have some shops where they can sell those jewelleries but once they finish selling one particular set of jewellery they do not check for the replenishment period, inventory turnover period or further demand for the item. As soon as they get funding through their source or from government, they will start making another set of the jewellery which may not be demanded by the market and later they will end up struggling to sell the product.

SHG's Cutlery Making Business

SHG's Quality Improvement Meeting

5.3.2. Skill Development:

Though the SHG members had inherent skills to produce quality handicrafts, they required skill up-gradation in areas of business development, financial management, sales and marketing. The CLC was unable to address this need and as a result of which they were unable to set up robust marketing and sales channel.

SHG Products

5.3.3: Sales & Marketing:

SHGs were dependent on the CLC to facilitate marketing and sales of their products by organizing exhibitions. But the CLC Kanpur did not organize exhibitions on regular intervals due to lack of space. It also failed to attract a good volume of sales. To increase sales, SHGs also engaged in door to door and B2B sales however, both these channels did not allow them to make substantial profits or gain regular business. Handicrafts manufactured by the SHGs were not even a part of any formal supply chain which had the potential to attract sales for the SHG products.

The sales of SHG products also fell under the purview of the public procurement system of GeM portal. Accordingly, CLCs were instructed to sell all the SHG products through the GeM portal only. But, unfortunately, consumers were not aware of the GeM portal. Besides, the CLC Kanpur Zone -5 team was not well versed with the portal operations. All these factors negatively impacted the marketing potential of SHGs and their productivity. It was concluded that to enhance the sales and marketing of SHG products, a robust supply chain was required along with a professional trainer to train them for producing highly finished products.

5.4. Action Plan:

5.4.1. Nature of the Job:

There was a need to create appropriate channels through which regular work could be sourced for the registered service providers at the CLC. To ensure service delivery to the targeted customers' online platforms should be explored for market penetration. For instance, the widely known 'Urban Company,' which is an app-based commercial agency offering services of drivers, plumbers, electricians, beauticians, caregivers and other service providers on a click. Accordingly, the CLC could design a similar model to source and connect customers to the registered service providers. The app can be developed in partnership with either a public sector or a private sector company and the call centre can be set up by the CLC. For the app to be efficiently used, it has to be promoted effectively. With an increased customer base and subsidized prices, the service providers will have continuity of work.

To ensure service delivery to the targeted customers' online platforms should be explored for market penetration. The service providers should be offered regular trainings on development of soft skills and inputs on pricing strategy.

To ensure efficient service delivery and professional approach, the service providers should be offered regular trainings on development of soft skills (communication skills, dress code, turnaround time and service delivery), skill up-gradation and inputs on pricing strategy. This will guarantee quality service at a reasonable cost to the consumer. To ensure customer satisfaction and trust, the CLC should ensure background check and police verification of all the service providers. A grievance redressal cell should be set up to address customer grievances.

5.4.2. Marketing:

To revive the marketing and advertisement of CLC services, efforts should be made to promote CLC services through social media platforms (eg. Facebook and Instagram). Success stories of consumer satisfaction should be shared on social media platforms. Local community Facebook groups should be tracked and used for CLCs' advertisements and promotions. WhatsApp groups can be created to connect service providers with

customers. To ensure appropriate market penetration a detailed marketing plan should be designed by the AWARD team.

5.4.3. SHG development:

To map the development and performance of the SHGs, appropriate documentation consisting of vital information about the SHGs should be created. The document should consist of a profile of group members, income generation activities, items produced, current production and sales figures.

Based on the income generation proposals of the SHGs the working capital requirement should be worked out and the average profits should be forecasted. CLC should invest time in closely tracking the monthly production and sales for each SHG. The results should be utilized to identify the areas of improvement. CLC should organize customized regular trainings for improving the quality of SHG products and sales.

SHG Products

5.4.4. Alternative Channels for Sales:

To promote the market penetration for the SHG products and increase the market reach beyond Kanpur, CLC should tie-up with Flipkart/Amazon/Big Bazaar/Myntra and so on. Appointment of designated personnel at the CLC to manage the inventory and shipping shall aid in creating a standardised system for efficient inventory management and avoid piling up of stock.

5.4.5. Management of CLC:

To ensure efficient operations of CLC there is a need to devise manual of standard operating procedures (SOP) for all the processes. A training department should be set up at the CLC to meet the training requirements of service providers and SHGs. Finally, a brand image should be created for the CLC with a value proposition of 'Secure, Reliable and Simple'.

6. Discussion

Though CLC has huge potential to grow, it requires an appropriate ecosystem for being commercially successful. NGOs like AWARD who are managing CLC are mandated to follow the rules and regulations of MoHUA and hence are devoid of having any autonomy. This limits them from making any modifications related to website development, app development or altering the implementation process. The hierarchical and rigid nature of administrative services makes it a complex process to receive approval for a novel idea.

Award had to manage CLC operations with limited physical and manpower resources. There was an absence of technically qualified personnel to design website, develop an app, set up the supply chain network, marketing and training. Availing funding from the concerned departments for operational expansion is a tedious process. Thus additional sources for revenue generation should be identified. An advisory team of professionals at DUDA or SUDA could be created to offer handholding support to CLCs. Creation and promotion of an all India app and website would go a long way in creating visibility for CLC services.

Availing funding from the concerned departments for operational expansion is a tedious process. Thus additional sources for revenue generation should be identified. An advisory team of professionals at DUDA or SUDA could be created to offer handholding support to CLCs.

In the context of 'app-based services' market, private parties have been able to set a benchmark with the quality of services provided by them. They have a professional approach with a trained team of service providers. On the other hand, the service providers facilitated by the CLC have never worked for individual households, they were largely placed in on-field government

projects. Thus grooming them to follow rules and regulations in the personalized service space can be a challenge. Even at the organizational level, AWARD may not be able to meet the expectations of the market in terms of agility, awareness and determination. Although AWARD aspires to skilfully engage the skilled workforce, are they ready to push themselves on this difficult path and make it practically viable? Only combined efforts of all stakeholders with mentoring support in the right direction shall make the implementation worthwhile.

To market SHG products it is essential to develop and execute a robust marketing plan. Also, for ensuring sustainability in the supply chain effective inventory management is a must. Given the poor educational backgrounds of the SHG members, it is perceived that they will be dependent on the CLC for undertaking the above operations. Although business on e-commerce portals seems easy, it is also very fragile. With the rising awareness and competition, there is no scope for mediocre quality or underperformance. Even a single negative customer review can impact an upcoming business. Thus it is felt that, due to restricted resource availability, there is a high possibility that the CLC may not able to provide services at par with private companies.

With the rising awareness and competition, there is no scope for mediocre quality or underperformance. Even a single negative customer review can impact an upcoming business.

The renewed CLC model, proposed action plan discussed in section V of this paper will require a high level of commitment and drive from the top management of AWARD as well as the government employees. The competencies of AWARD team should be upgraded to facilitate change. The proposed structure will require multiple collaborations between both the parties to ensure smooth operations.

7. Conclusion

Achievement of SDG 8 i.e. Decent Work and Economic Growth and SDG 1 i.e. No Poverty can be attained through initiatives such as the City Livelihood Centre under the NULM scheme for the betterment of urban poor. In a resource constraint environment,

the CLC has a noble intent to uplift the urban poor by offering skill enhancement and livelihood opportunities. The proposed action plan shall act as an accelerator which will aid in gaining the trust of the beneficiaries, create employment opportunities, and ensure financial sustainability for AWARD. Execution of any plan requires a favourable and conducive environment and only the reformed CLC model can become a real game-changer for ensuring economic empowerment of the underprivileged. Once successful, the model can be replicated across the country for impacting a larger beneficiary base.

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Epilogue

The articles of the Anthology highlight the Indian Government's inability to cope with the pathology of a burgeoning underclass who still strive to fulfill their necessities like health. Poor conditions of our public health system especially in rural areas examined by our students underscore the importance of designing appropriate health management systems and increasing the investments in the health care sector. There is a need to integrate efforts taken by the government, NGOs, private sector medical schools as well as management schools for designing a robust public health system to take care of people belonging to different age groups. It is only then in the true sense we will be able to achieve SDG 3- Good Health and Wellbeing.

Due to lack of preventive and promotive health in the country, sizable amount of people get disabled. A large section of the able bodied population besides losing their lives becomes disabled due to the increasing number of road accidents. The well-established road network which provides good connectivity for facilitating travel and trade remains dangerous for its users. Despite the efforts made by the Ministry of Road Transport and Highways towards the improvement of safety standards, the situation remains grave. With the Motor Vehicles Amendment Bill on July 31, 2019, an attempt is made to shift the focus from moving cars to moving people by incorporating safety in infrastructure planning, vehicle manufacturing, and regularizing the behaviour of road users. Although attempts have been made in the right direction, it will require at least a decade to see the results. Countries like the United Kingdom, Australia, and Sweden have improved their conditions via effective central legislation. India should also incorporate a comprehensive road safety legislation as indicated by WHO which incorporates evidence-based measures and strict penalties, backed by constant continuous enforcement and public education. To see immediate outcomes a mindset change should be facilitated via a coordinated programme to prioritize safe commute practices. The social campaigning used to ensure handwashing and usage of face mask during the Covid-19 pandemic should be replicated to imbibe safe commute behaviour.

Inclusion of the marginalized has been an agenda for the Indian Government since the fifth five-year plan. In this direction, the Anthology covers the skill development initiatives designed by the Government for PwDs and highlights the legal, financial, and managerial loopholes in achieving the desired impact. The emphasis so far has been laid on merely designing the schemes without examining the real-time supply and demand for the services required by

PwDs. For instance, our MBA students examined the role of assistive technology in improving the functionalities of the disabled and the challenges faced by PwDs in accessing the same. Soon if India is keen on creating an inclusive society, it should have legal provisions to facilitate representation of the PwDs at various levels of the government. This shall aid in sensitizing the policymakers as well as those executing the schemes.

Similarly, students learned that the lacuna in the system for economically empowering migrant labourers and rehabilitating women rescued from the shackles of trafficking has caused a serious emotional, financial and social set back to their lives. It is essential to note that in a multifaceted country like India, it is immature to solely depend on the Government to design and implement schemes to pull the deprived out of their misery. This is also impractical because one of the prime factors for their condition is the imbalance caused by the business sector to the country's ecosystem. In this regard, the 2030 Agenda lays out 17 Sustainable Development Goals (SDG) to aid governments and businesses to align their strategies and practices to achieve the same before the deadline.

To achieve SDG 8 – Decent Work and Economic Growth the government's initiatives to uplift the urban poor via skill building is appreciated. To leverage the opportunity multiple NGOs have come forward for implementing the schemes in a meaningful manner. Their strengths of grass-root knowledge, empathetic approach, and credibility within the community go a long way in creating awareness and winning the trust of beneficiaries. Articles in the Anthology suggest that to facilitate larger reach and ensure sustainable growth of beneficiaries there is a need to develop socially viable business models. As corporates' have a global presence, their strengths should be leveraged to create inclusive business models. For instance, the after-sales services vertical for a particular product can be managed by trained PwDs or trained manpower from the marginalized sections of the society. B-Schools can play an active role in imbibing the values of sustainable business practices that uplift the underprivileged and neglected sections of the society amongst their students. They can encourage young business professionals to design pro-poor business models and to attain business goals via social intent. Business students should be exposed to the power of cross-sector partnerships to create a conducive social and business environment.

To sum up, a country will be able to achieve its desired potential when it caters to the needs of the most deprived stakeholders. Harnessing their talents via customized interventions focusing on their abilities will bring a positive impact on the country's GDP and ensure inclusion.

About the Jasani Centre for Social Entrepreneurship and Sustainability Management

The Jasani Centre for Social Entrepreneurship and Sustainability Management, NMIMS, has been established to execute social commitments of NMIMS University. The centre addresses social concerns through its comprehensive academic, training, research, and field interventions. Its interventions include contributions to the professional development of executives working for the social sector, capacity building for the resource poor and social entrepreneurship development. The centre supports a variety of curricular, extracurricular and career programs to provide MBA students as well as corporate executives with the tools and opportunities to engage effectively with the social sector. The centre offers a uniquely architectured MBA programme in Social Entrepreneurship which aims at developing a new generation of change makers/leaders who can create global social impact by combining passion of a social mission along with a business-like discipline, innovation, and determination.

As a catalyst and innovator, the centre's mission is to create a new generation of business leaders and social entrepreneurs who are knowledgeable about and are committed to create a sustainable society. The centre's objectives serve as a bridge between academia, the corporate world and the civil society organizations. The research, as well as the teaching strengths combined with the experiential learning approach and guiding principles of the centre, connect sustainability focused knowledge and research to students, businesses and the civil society organizations. The centre has increasingly been involved in research and providing consultancy in areas of management of social enterprises, CSR, micro-enterprise management, disaster management, impact assessment and conducting social audits.

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