

IMPACT ASSESSMENT REPORT FOR FY 2021-22



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Background

Cipla Limited (hereafter referred to as Cipla), through its philanthropic arm, the Cipla Foundation, is committed to 'Caring for Life' and driving social change. The Foundation undertakes Cipla's Corporate Social Responsibility (CSR) activities directly and has also collaborated over 60+ implementing partners which include Government agencies, reputable institutions, NGOs, , and domain experts to enrich and enhance the reach of its initiatives.



As mandated by the statutory provisions, Cipla is obligated to assess the impact of its CSR projects that were completed over a year ago. For the purpose of the impact study, OECD DAC Evaluation Criteria was used for assessing the impact. The framework has defined six (6) evaluation criteria, i.e., Relevance, Coherence, Effectiveness, Efficiency, Impact, and Sustainability.

Approach and Methodology

Rationale of the study

To undertake social impact assessment of CSR initiatives being implemented by Cipla for FY 2021-22 across various key thrust areas in accordance with CSR Rules, wherein, minimum one year has elapsed since implementation of the projects.

Research Framework

For assessment of the impact of CSR activities undertaken by Cipla, the OECD DAC Evaluation Criteria were used. This criterion provides a normative framework to determine the impact of any development intervention. The framework has defined six (6) evaluation criteria, i.e., Relevance, Coherence, Effectiveness, Efficiency, Impact, and Sustainability.



Detailed Methodology

A step-by-step approach used for the assessment has been highlighted below.

1. The approach used for the CSR impact assessment study will follow a five-step process as follows:

- 2. The process commenced with a desk-review of project documents shared by CIPLA. This was followed by development of questionnaires both qualitative and quantitative tools, in consultation with CIPLA.
- 3. Based on logistical and context specific limitations, beneficiary interviews were undertaken through on-site interviews as well as virtual meetings and telecalls.
- 4. This was followed by data cleaning, analysis, and interpretation.
- 5. Impact assessment report was prepared based on site visit observations and data analysis and interpretation.



Project wise approach to the impact assessment study:

Theme	Desk Review	Site visit	Management interview	Beneficiary interview
Palliative care	•	•	•	•
Respiratory projects	•	•	•	•
Patient support	•	•	•	•
Strengthening health systems	•	•	•	•
Community/doorstep health	•	•	•	•
Promoting Quality Education	•	•	•	•
Scholarships	•		•	
E-Learning	•	•	•	•
Strengthening School Infrastructure	•	•	•	•
Research	•		•	
Vocational Skills	•	•	•	•
Environmental sustainability	•	•	•	•
Disaster response	•		•	

List of Abbreviations

AMR	-	Anti-Microbial Resistance
AW / AWWs	-	Anganwadi workers
BMT	-	Bone marrow transplantation
СНС	-	Community Health Center
COPD	-	Chronic Obstructive Pulmonary Disease
ECE	-	Early childhood Education
ESHG	-	Elderly Self-help Group
FLN	-	Foundation Literacy and Numeracy
GIM	-	Green India Mission
HPLC	-	High-Performance Liquid Chromatography
ICDS	-	Integrated Child Development Services
ICT	-	Information and communication Technology
IPD	-	Inpatient Department
ITI	-	Industrial Training Institute
KMES	-	Konkan Muslim Education Society
MHU	-	Mobile Health Unit
MoE	-	Ministry of Education
MSCIT	-	Maharashtra State Certificate in Information Technology
NAPCC	-	National Action Plan on Climate Change
NCERT	-	National Council for Educational Research and Training
NCEs	-	New Chemical Entities
NCRP	-	National Cancer Registry Programme
NEP	-	Nation Education Policy
NMR	-	Nuclear Magnetic Resonance
NPCDCS or NCD	-	National program of Prevention & Control of Cancer, Diabetes, Cardiovascular Diseases & Stroke
NPDM	-	National Policy on Disaster Management
NREP	-	National Resource Efficiency Policy
ODL	-	Open Distance Learning
OPD	-	Outpatient Department
PC	-	Palliative Care
РНС	-	Public health Center
ΡΜΚΥΥ	-	Pradhan Mantri Kaushal Vikas Yogna
PRC	-	Pulmonary Rehabilitation Centres
RTE	-	Right to Education
SDG	-	Sustainable Development Goals
SEDI	-	Skill & Entrepreneurship Development Institute
Shg	-	Self-Help Group

STEM	-	Science Technology Engineering and Math
STIP	-	Science Technology and Innovation Policy
ТВ	-	Tuberculosis
ТМС	-	Tata Memorial Centre
UDISE	-	Unified District Information System for Education
UHS	-	Universal Health Coverage
UIFP	-	Ummeed Inclusion Fellowship Program (UIFP)
UNESCO	-	United Nations Educational, Scientific and Cultural Organization
VI	-	Visually Impaired
VLF	-	Village Level Federation
WHO	-	World Health Organization

Palliative Care

Palliative care is an approach that improves the quality of life of patients (adults and children) and their families who are facing problems associated with life-threatening illness. It prevents and relieves suffering through the early identification, correct assessment and treatment of pain and other problems, whether physical, psychosocial or spiritual. Addressing suffering involves taking care of issues beyond physical symptoms. Palliative care uses a team approach to support patients and their caregivers. This includes addressing practical needs and providing bereavement counselling. It offers a support system to help patients live as actively as possible until death.

Palliative care is explicitly recognized under the human right to health. It should be provided through person-centered and integrated health services that pay special attention to the specific needs and preferences of individuals.¹

Palliative care is required for a wide range of diseases. The majority of adults in need of palliative care have chronic diseases such as cardiovascular diseases (38.5%), cancer (34%), chronic respiratory diseases (10.3%), AIDS (5.7%) and diabetes (4.6%) globally. Many other conditions may require palliative care, including kidney failure, chronic liver disease, multiple sclerosis, Parkinson's disease, rheumatoid arthritis, neurological disease, dementia, congenital anomalies and drug-resistant tuberculosis.²

The 'Quality of death 'index measures the current end-of-life care environments across 40 countries. The report identifies poor access to pain relief, a lack of palliative care at national level and cultural taboos as the main barriers to countries providing a good 'Quality of death 'and thus a good quality of life at the end of life. India ranks at the bottom of the Quality of Death Index in overall score and scores badly on many other indications. Furthermore, India ranks poorly regarding the knowledge of existence of hospice care, reflecting a general lack of awareness.

It is estimated that in India the total number of people who need PC is likely to be 5.4 million people a year, stressing on the need to expand the coverage of Palliative Care services and integrate services.

- 1. Late diagnosis and inadequate pain relief: According to WHO, there were 60 million people above 65 years of age in 2010 in our India and that this figure will increase to 227 million by 2050 constituting 20% of the total population. Non-communicable diseases including injuries. Long-term care for such patients is emerging as a major health care issues in India. However, only 3% patients with terminal illness have access to adequate pain relief.
- 2. Lack of palliative care facilities: In India, the coverage of Palliative Care services is limited with services concentrated in large cities and regional cancer centres with exception of Kerala, where the services are more widespread.
- 3. Lack of medical infrastructure: The majority of the urban poor to rely on government run hospitals, which may not be able to provide the best infrastructure due to geographical and resource constraints. The vast distance and poor transportation facility also prevent patients from getting medical relief³

The institutionalization of palliative care for cancer in India started after 1984 when the National Cancer Control Programme was modified to include pain relief as one of the basic services in cancer management. Several palliative care centres and hospice (home-based) care programmes have been commenced in the past three decades. The Palliative Care Programme of Cipla is one of the major initiatives dealing with palliative care in India.

Cipla's unique interventions in palliative care aims to increase access to quality palliative care services for patients with serious illness as well as for their families including awareness and building capacity for communities and health care providers. The palliative care programme of Cipla comprises three components - Cipla Palliative Care and Training Centre, augmenting access to palliative services through awareness and home-based support, and support to palliative and supportive care units.

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¹ https://www.who.int/news-room/fact-sheets/detail/palliative-care

³ Palliative and End of Life Care in India – Current Scenario and the Way Forward, Smriti Bag, Sumita Mohanty, Nerbadyswari Deep, Naveen Salins, Sonamali Bag

Geographical cover	age		
Andhra Pradesh	Assam	Dethi	Goa
Vishakhapatnam	- Guwahati Silchar	New Delhi	Panaji
Jammu & Kashmir	Kamataka	Maidhya Pradesh	Maharashtra
Srinagar	Bangalore	Indore	- Mumbai Pune
TamilNadu	Telangana	Uttar Pradesh	West Bengal
Chennai	Hyderabad	Lucknow	Kolkata



More than 1,000 calls have been received on 'Saath-Saath' helpline, which includes 120+patients that were referred to partner organisations through the helpline.

#	Implementation Partner	Key Project	Key Activities
1.	Access Life Assistance Foundation (GAF)	Supporting Access Life Assistance Foundation for Access life Health care project - Accommodation, Nutrition & Transportation	 Unique patients and caregivers provided services Healthcare providers sensitised by Palliative care team
2.	Aga Khan Health Services (India) (GAF)	Enhancing access to Palliative care through integration of Palliative care with NCD program for communities in 8 blocks, Pune District	 Provision of home-based palliative care Capacity building of volunteers Capacity building of medical and paramedical staff Councelling of patients and caractivers
3.	B. Barooah Cancer Institute Guwahati (GAF)	Supporting 1 Home Care team in Guwahati in partnership with B. Barooah Cancer Institute	 Courselling of patients and categories Enhancing community awareness on palliative care
4.	Bai Jerbai Wadia Hospital for Children	Pediatric Palliative and Supportive care Unit functioning at Bai Jerbai Wadia Hospital for Children – year 3 – 2021-22	 Provision of OPD-based palliative and nursing care Providing paediatric palliative care and integrating paediatric palliative care Providing Hospital based palliative care,
5.	Can KidsKids Can (GAF)	Support towards Change for Childhood Cancer in 3 Hospitals in Mumbai and Pune of Maharashtra	 Training and capacity building of medical and paramedical staff Psycho-social support to patients and care givers
6.	CanSupport (GAF)	Supporting 4 Home care teams for providing Holistic Home-Based Palliative Care for people living with cancer	 Provision of home-based palliative care Capacity building of volunteers Capacity building of medical and paramedical staff

NEISTRY INNOVATO

		in South Delhi and North Delhi Resettlement Areas Palliative Care Helpline for information, care, referrals and emotional support around cancer at CanSupport	 Counselling of patients and caregivers Enhancing community awareness on palliative care
7.	Cipla Cancer & Aids Foundation	Support towards Cipla Palliative Care and Training Centre (CPC) – 2021-22	In patient palliative care, Psycho-social support to patients and care givers, OPD based support at external hospitals, Home-based care
8.	Golden Butterflies Children's Palliative Care Foundation (GAF)	Support towards 2 Home care Paediatric Supportive team in Chennai in association with Golden Butterflies Children's Palliative Care Foundation	 Provision of home-based palliative care Capacity building of volunteers Capacity building of medical and paramedical staff Counselling of patients and caregivers Enhancing community awareness on palliative care
9.	Indore Cancer Foundation (Level II)	Enhancement in the quality of palliative care offered in Indore and the nearby areas, with special focus on the palliative care facility at Indian Institute of Head and Neck Oncology,	 Provision of OPD-based palliative and nursing care Providing paediatric palliative care and integrating paediatric palliative care Providing Hospital based palliative care, Training and capacity building of medical and paramedical staff Psycho-social support to patients and care givers
10.	Karunashraya Bangalore Hospice Trust	Operating costs of 1 ward - 12 BEDS at Karunashraya (Bangalore Hospice Trust)	In-patient care , Psycho-social support to patients and care givers
11.	King George V Memorial	Development of a Centre of Excellence for Inclusive Palliative Care In partnership with King George V Memorial Integrated Palliative and supportive care for Cancer Patients through OPD and IPD under Radiotherapy department at King	 In-patient care , Psycho-social support to patients and care givers Provision of OPD-based palliative and nursing care Providing paediatric palliative care and integrating paediatric palliative care Providing Hospital based palliative care, Training and capacity building of medical and paramedical staff Psycho-social support to patients and care
12.	National Institute Of Mental Health and Neuro Sciences (GAF)	George's Medical University Development of a Neuro- palliative and supportive care model for patients with chronic neurological conditions in NIMHANS	 In-patient care , Psycho-social support to patients and care givers Capacity building
13.	Pain Relief and Palliative care society (GAF)	Supporting Pediatric Palliative Care Program in Niloufer Government Children's Hospital and MNJ Institute of Oncology, Hyderabad and Providing Home-Based Palliative Care for Children with Life Limiting Conditions in the Community through by Pain Relief and Palliative Care Society	 Provision of OPD-based palliative and nursing care Providing paediatric palliative care and integrating paediatric palliative care Providing Hospital based palliative care, Training and capacity building of medical and paramedical staff Psycho-social support to patients and care givers
14.	Pallium India (GAF)	Facilitating Palliative Care Services to patient through Pallium India in Jammu & Kashmir and West Bengal	 Provision of home-based palliative care Capacity building of volunteers Capacity building of medical and paramedical staff Counselling of patients and caregivers Helpline support
15.	Sneha (Soc for Nutri Edu HIth Act)- Cipla	Support for Romila Palliative Care from January 2021 to March 2021	 Provision of home-based palliative care Capacity building of volunteers Capacity building of medical and paramedical staff Counselling of patients and caregivers Enhancing community awareness on palliative care

16.	Tata Medical Center (GAF)	Integrated Hospital Based Continuity of Palliative and supportive Care (IHCC) at Homi Bhabha Cancer Hospital & Research centre (HBCHRC) Neonatal Palliative Care which involve integrated holistic palliative day care services to children and their families who are registered at KEM hospital, Mumbai, Maharashtra (2021-22)	 Provision of OPD-based palliative and nursing care Providing paediatric palliative care and integrating paediatric palliative care Providing Hospital based palliative care, Training and capacity building of medical and paramedical staff
17.	Tata Memorial Center	Comprehensive Pediatric Palliative Care at Chhatrapati Shivaji Maharaj Hospital, Kalwa and Bai Yamunabai Laxman (BYL) Nair Hospital, Mumbai central In partnership with Tata Memorial Hospital 2021-22	 Psycho-social support to patients and care givers

Theory of change



Relevance

In India, where the burden of chronic illnesses is high, palliative care services are essential for the provision of holistic care to patients and their families. Several studies in India have reported the need for palliative care in the community setting but varies from 1.5/1,000 population to 43.1/1,000 population. Accurately estimating the need for palliative care and identifying vulnerable groups are crucial steps in prioritising palliative care services.⁴

According to a recent survey, more than 108 entities currently provide facilities to improve the quality of life and palliative treatment services in 16 states/union territories. These are mainly restricted to major cities and regional cancer centers, with the exception of Kerala, where services are more readily available than in other states. NGOs, public and private hospitals, and hospices are primary care providers. Services have developed unevenly, with the south having more services than the north.⁵

Cipla's palliative care program is highly relevant as it addresses the pressing need for patients to access to quality end-of-life care and reduction in financial burden.

Effectiveness:

The program addresses each stage of the continuum of palliative care with customised support for each patient, caregiver and family to support them.



This is achieved through the following modes of service delivery:

- In-patient hospices and centres
- Out-patient support
- Home-care support

⁴ Chandra A, Debnath A, Nongkynrih B. Palliative Care Need in India: A Systematic Review and Meta-analysis. Indian J Palliat Care. 2023 Oct-Dec;29(4):375-387. doi: 10.25259/IJPC_140_2023. Epub 2023 Nov 11. PMID: 38058486; PMCID: PMC10696344.

⁵ Gaikwad A, Acharya S. The Future of Palliative Treatment in India: A Review. Cureus. 2022 Sep 23;14(9):e29502. doi: 10.7759/cureus.29502. PMID: 36299979; PMCID: PMC9588309.

The services aim to support the patients and families through pain management, psychological distress, and social and spiritual issues with the help of specialised professionals who are part of the implementation team.

The program has ensured access to palliative care across major locations and in cases where patients are not mobile, provide doorstep care through home-care services. This access has been improved through a network of over 25 partners. Furthermore, a helpline named 'Saath Saath' has also been implemented to support patients, families and caregivers in guiding them to the right channels of support and spread awareness.



Impact:

The project was able to achieve the following outcomes leading to impact:

- 800+ Inpatient consultations
- 6,000+ Outpatient consultations
- 7,700+ Homecare visits
- 6,200+ Healthcare professionals trained
- 16,500+ patients served across 14 cities and through 23 partners in collaboration with a network of 13 home care teams and 15 in-patient department teams.

The program supports stakeholders in pain management, psychosocial support and bereavement support. During the assessment, over 40 family members of patients and 5 caregivers were interviewed to understand their perception of the services provided, which has been summarized below:

Aspects of palliative care	Observations
Pain management	The family members revealed that the program has helped in pain and symptom management of patients to a large extent through physiotherapy, medication and assistive devices. All stakeholders stated that pain had reduced by at least 40-50% post availing the services.
Psychosocial support	The family members/caregivers for patients who availed the palliative care programs revealed that counsellors are available at all times for support. The support is not only limited to counselling regarding the patient and the projects team also support the patients in addressing their concerns on societal norms, future planning and succession etc. The respondents from in- patient facilities also acknowledged the role of design and architecture of these facilities in providing them peace and comfort.
Bereavement	Under the projects, stakeholders are also supported in addressing grief as well as bequests from patients.

Reduction in financial burden

In a study conducted in a Government Regional Cancer Centre in North India, it was found that the outof-pocket expenditure per patient per day for treatment and palliative care amounts to INR 2044.21. Additionally, the social cost per patient per day was INR 518.21.⁶ This results in a monthly expenditure of INR 76,860.

As observed at the Cipla Palliative Care Centre, the duration of patients availing palliative care (as interviewed) ranged from 4 weeks to more than 24 weeks. This would imply that a family availing palliative care at cost may have to face significant financial burden. Stakeholders who were interviewed also stated that in most cases, the patients were either sole bread-earners of the family or were significantly contributing to household responsibilities. Hence, they may not have been able to afford a palliative care services where they had to incur high costs.

Through this program, patients and their families are able to avail state-of-art facilities and palliative care. This reduction in financial burden also results in less emotional stress for them at a time when they deal with critical illnesses of their loved ones.

Capacity building

In the current scenario, there are limited specialised courses available in palliative care services. Therefore, availability of specialise staff may be challenging in next 5 years as government policies highlight the importance and growth potential of palliative care in India. Thus, majority of the staff employed under the program at centres, hospices and home-care teams receive on-job training and gain experience at the grassroots.

Satisfaction with services

Among the stakeholders covered during interactions, 92.5% of them said they were satisfied with the services provided under the program.



Coherence:

Palliative care has been acknowledged and identified as a key priority in the National Health Policy 2017 with a focus on promotion of home-based palliative care by healthcare workers.

The National Programme for Palliative Care (NPPC) was formulated to address availability and accessibility of palliative care to the needy and has listed the following objectives:

- Improving the capacity to provide palliative care service delivery within government health programs such as the National Program for Prevention and Control of Cancer, Cardiovascular Disease, Diabetes, and Stroke; National Program for Health Care of the Elderly; the National AIDS Control Program; and the National Rural Health Mission.
- Refine the legal and regulatory systems and support implementation to ensure access and availability of Opioids for medical and scientific use while maintaining measure for p
- eventing diversion and misuse
- Encourage attitudinal shifts amongst healthcare professionals by strengthening and incorporating principles of long-term care and palliative care into the educational curricula (of medical, nursing, pharmacy and social work courses).
- Promote behaviour change in the community through increasing public awareness and improved skills and knowledge regarding pain relief and palliative care leading to community owned initiatives supporting health care system.
- Develop national standards for palliative care services and continuously evolve the design and implementation of the National program to ensure progress towards the vision of the program ⁷

Cipla's palliative care programs supported this focus area through its network partners and strives to ensure that quality in-patient and home-care services are enhanced. The programme also focused on

⁶ The out-of-pocket expenditure per patient per day was INR 2044.21. The social cost per patient per day was INR 518.21. Out of the total expenditure of INR 2562.42/patient/day, 80% of the cost was out-of-pocket expenditure and the remaining 20% was social cost borne by the patient

⁷ nhm.gov.in

generating awareness through active outreach and helpline services. Thus, the program aligns with the national priorities through its activities.

Sustainability

The project demonstrates sustainability through various strategic approaches. Apart from CPC which has been demonstrated as a self-sustaining model, it forges partnerships with existing hospices and service providers. Building capacity of workforce in the palliative care space is another key activity that ensures the project and similar services offered are equipped with capable and knowledgeable medical staff.

Respiratory Projects

Respiratory diseases pose a significant burden on global health, affecting millions of individuals worldwide and presenting formidable challenges to healthcare systems. From common ailments such as the flu to chronic conditions like onset of asthma, chronic obstructive pulmonary disease (COPD) and respiratory disorders impact individuals of all ages and socioeconomic backgrounds. Understanding the intricacies of respiratory health is essential not only for the prevention and management of these conditions but also improving patient outcomes through rehabilitation.

In recent years, the prevalence of respiratory diseases has surged, driven by factors such as urbanization, air pollution, tobacco use, and the emergence of novel pathogens like the SARS-CoV-2 virus responsible for the COVID-19 pandemic. The SARS-CoV-2 coronavirus (COVID-19) has resulted in unparalleled morbidity, mortality and there is a notable proportion of COVID-19 survivors experience residual and longterm effects in their lungs. After recovering from COVID-19,TB is becoming more common, potentially leading to a TB outbreak in the post-COVID-19 era While the COVID-19 pandemic impacted TB Programmes across the globe, India was able to successfully offset the disruptions caused, through the introduction of critical interventions in 2020 and 2021, leading to the National TB Elimination Programme notifying over 21.4 lakh TB cases.⁸ The complex interplay between environmental, genetic, and lifestyle factors underscores the multifaceted nature of respiratory health and underscores the need for comprehensive approaches to address these challenges. Moreover, respiratory diseases disproportionately affect vulnerable populations, including children, the elderly, individuals with preexisting conditions, and those living in underserved communities with limited access to healthcare resources. Disparities in respiratory health outcomes highlight the importance of equity in healthcare delivery and underscore the urgency of implementing targeted interventions to reduce morbidity and mortality associated with respiratory conditions.

The significance of respiratory health extends beyond the individual level, impacting public health systems, economies, and societal well-being. Acute respiratory infections strain healthcare infrastructure during seasonal outbreaks, while chronic respiratory diseases impose long-term healthcare costs and productivity losses. Furthermore, the emergence of respiratory pandemics, such as COVID-19, underscores the need for preparedness and rapid response strategies to mitigate the spread of infectious agents and safeguard global health. In response to these challenges, Cipla, through its philanthropic arm, Cipla Foundation collaborated with multiple implementing agencies for Pulmonary Rehabilitation programs to address the underlying mechanisms of respiratory diseases, identify novel therapeutic targets, and develop innovative interventions to prevent and treat respiratory conditions effectively. These projects aimed to contribute towards respiratory health which represents a critical area of focus in healthcare and its implications for individual well-being and public health. By addressing the complexities of respiratory diseases arising through exposure to COVID-19 through comprehensive approaches, improve clinical care, and enhance the respiratory health and quality of life for individuals.

Given below is a table, listing the various projects undertaken by Cipla in collaboration with various program partners across Maharashtra, Madhya Pradesh, Rajasthan, and west Bengal.



⁸ www.ncbi.nlm.nih.gov



#	Implementation Partner	Key Project	Key Activities
18.	Bharti Vidyapeeth	 Pulmonary Rehabilitation centre at Bharti Medical College hospital, Pune for Post Covid and COPD cases. Phase 2: Bharti Hospital Pulmonary Rehabilitation Centre with Community Outreach through Rural Health Centre, Lavale for Chronic Respiratory Diseases and post-Covid patients 	 Conducting of comprehensive assessments of patients' pulmonary function, exercise capacity, and overall health status. Using of standardized tests and measurements to evaluate the severity and progression of COPD or post-COVID respiratory issues. Developing a personalized treatment plans tailored to each patient's needs and goals. Regularly monitoring patients' progress through pulmonary function tests, exercise tolerance assessments, and symptom tracking Implementing telemedicine services to provide remote consultations, follow-up appointments, and monitoring for patients unable to access the Center in person
19.	Ambuja Cement Foundation (GAF)	 ASHWAAS - Community based intervention in Chandrapur, Maharashtra for NCDs including Respiratory Care NCDs (Asthma & COPD). 	 Conducting regular screenings to detect respiratory conditions early. Raising awareness about asthma, COPD, and NCD prevention and management. Train local healthcare workers on respiratory NCD diagnosis and management. Ensuring referral pathways for individuals diagnosed with respiratory NCDs to access specialized care, PRC & medication assistance programs
20.	Asthma Bhawan	Pulmonary Rehabilitation Centre at Asthma Bhawan, Jaipur	 Evaluating pulmonary function and overall health using standardized tests. Developing individualized plans for
21.	Institute of Pulmocare and Research	Pulmonary Rehabilitation Centre at Institute of Pulmocare and Research (IPCR), Kolkata	exercise, breathing techniques, and nutrition.Offering tailored exercise sessions to enhance respiratory strength and
22.	Basic Healthcare Services (BHS) (GAF)	Breathing Easy: Protecting health of tribal communities of South Rajasthan in COVID times and beyond	 endurance. Providing guidance on COPD management and offering psychological support.
23.	Cipla	 Pulmonary Rehabilitation Center (PRC) at Grant Government Medical College (GGMC), Group of TB Hospitals (GTB), Sewri and Bharatratna Dr. Babasaheb Ambedkar (BDBA) Municipal hospital, Kandivali, Mumbai for Post Covid and COPD cases. Pulmonary Rehabilitation centre at Yeshwantrao Chavan Memorial Hospital (YCMH), Pimpri for Post Covid and COPD cases. 	Engaging in local outreach activities and implementing telemedicine services for remote support.

Theory of change-Respiratory Diseases

INPUTS/ACTIVITY	OUTPUTS	OUTCOME	IMPACT
Funding from Cipla Foundation for equipment procurement and setup.	Equipped with necessary facilities and healthcare pulmonary specialist	Improved health and well-being of patients through comprehensive pulmonary rehab	Early intervention and rehabilitation contribute to reducing complications and improving the quality of life for
Dedicated healthcare professionals, including Pulmonologists, Clinical Psychologists, Nutritionists, and support staff.	Implementation of a Comprehensive Pulmonary Rehab Program benefiting 550+ cases	Reduction in fatigue, and anxiety among post-Covid and Chronic Respiratory disorder patient	Reduction in long-term complications and hospitalizations related to
Research infrastructure and collaboration with academic	No. of cases screened and supported at different Rural Health Center	Increased awareness and early detection of respiratory illnesses in the community	respiratory disorders in the community served by the centre
Partnerships with other medical centres and hospitals	Community outreach and increased awareness about respiratory health,	Contribution to scientific knowledge through research and dissemination.	 Strengthened and expanded activities at Bharti Medical College Hospital leading to improved respiratory health
Community health workers and facilities at Rural Health	Patients underwent a comprehensive pulmonary	Enhanced collaboration and referrals with other healthcare	Strengthening the healthcare
Center.	rendo.	centres	ecosystem in Mumbai by integrating rehabilitation

services into existing hospital

facilities.

Relevance

Chronic obstructive pulmonary disease (COPD) is the third-leading cause of death worldwide, killing 3.2 million individuals every year and accounting for an astounding 81.7% of the total number of deaths from chronic respiratory disease. Pneumonia is a leading cause of death among children < 5 years old outside the neonatal period and in adults > 65 years old. The COVID-19 pandemic, in a brief period of 24 months, has claimed the lives of > 5.7 million people, all from respiratory causes. Tuberculosis (TB) would be the greatest single infectious cause of death if it were not for the current COVID-19 pandemic, with an estimated 500,000 new cases of rifampicin-resistant or multidrug-resistant TB in 2019 alone.⁹

The project is highly relevant as it addresses the pressing need for pulmonary rehabilitation services in hospitals catering to patients with respiratory conditions with focus on long covid well as supporting other patients with condition like COPD, asthma, and TB. Given the high patient inflow and prevalence of respiratory diseases in these hospitals, establishing Pulmonary Rehabilitation Centres (PRC) is essential to strengthen existing services and improve patient outcomes. By leveraging a multidisciplinary team comprising pulmonologists, physiotherapists, psychologists, and nutritionists, the project was well-equipped to provide comprehensive care addressing the holistic needs of patients. Replicating a successful model enhanced the project's effectiveness by adopting proven strategies and standard operating procedures (SOPs). The project activities are quite relevant with their objectives, such as providing pulmonary rehabilitation services to 250+ patients, conducting operational research, and establishing a community rehabilitation centre at a Rural Health Centre.

Effectiveness:

Setting up PRCs at these hospitals was highly effective in enhancing patient care and management of respiratory conditions. By providing specialized rehabilitation services, including physiotherapy and patient education, the PRCs helped improve lung function, reduce symptoms, and enhance overall quality of life for patients. The hospital's accreditation, infrastructure, and experience in providing tertiary care, the project was effective in delivering high-quality services to COPD/Asthma patients. Moreover, the hospitals demonstrated commitment to conducting charitable activities indicates an initiative-taking approach to reaching and serving vulnerable populations, including those disproportionately affected by respiratory ailments. By extending these efforts to encompass specialized rehabilitation services through PRCs, the project addressed specific needs of individuals with respiratory conditions, thereby enhancing their overall well-being and reducing disparities in access to care.

Efficiency:

The Project demonstrated efficiency through strategic leveraging of existing healthcare infrastructure and resources, such as the presence of respiratory medicine OPDs and physiotherapists at GGMC and BDBA hospitals. By capitalizing on these resources and collaborating with the MCGM Tuberculosis unit for physiotherapy services, the establishment of Pulmonary Rehabilitation Centres (PRCs) achieved cost-effectively, maximizing their impact on patient care. Leveraging established infrastructure of hospitals, expertise, and partnerships with government schemes and charitable initiatives further facilitated efficient implementation. The hospital's active involvement in various activities, including clinical trials and relief camps, underscored their ability to effectively utilize resources. Additionally, standardizing operating procedures and sharing best practices with implementing partners streamlined processes and optimize resource allocation, promoting efficiency.

Integration of Health Management Information Systems (HMIS) for data capture and project monitoring enhanced efficiency through data-driven decision-making. Overall, the project activities exhibited efficiency by targeting a significant number of patients and leveraging existing healthcare infrastructure, expertise, and partnerships, such as establishing tie-ups with other centres for patient referrals and providing exposure to undergraduate students, thereby maximizing resource impact, and enhancing healthcare delivery and capacity building.

⁹ www.ncbi.nlm.nih.gov

Impact:

The establishment of Pulmonary Rehabilitation Centres (PRCs) had a positive impact on patient outcomes and healthcare delivery in the region. Through the provision of comprehensive rehabilitation services, PRCs were poised to reduce hospital admissions including stay, enhance disease management, and elevate the overall well-being of individuals with respiratory conditions. With an estimated reach of 500 to 600 cases annually, the project held significant potential to improve the health and well-being of Post covid condition, COPD or Asthma patients by leveraging specialized care and the hospital's capabilities, thereby enhancing healthcare delivery within the community.

Moreover, the project addressed persistent symptoms and enhancing overall well-being for post-COVID patients and those with chronic respiratory disorders. Adopting a multidisciplinary approach ensures comprehensive care, encompassing physical, psychological, and nutritional needs, thereby augmenting patient outcomes and quality of life. Additionally, the proposed activities are positioned to have a notable positive impact on patient care, healthcare research, and capacity building. By serving a large patient population, conducting operational research, and facilitating the training of medical and nursing students, the activities contribute to improving healthcare access, quality, and knowledge dissemination in a holistic manner. Few broader levels impacts were:

Improved Patient Outcomes: These projects enhanced the quality of care and management of respiratory conditions such as COPD, asthma, and post-COVID respiratory complications. By providing specialized interventions, including pulmonary rehabilitation, physiotherapy, and patient education, these projects lead to improved symptom control, better lung function, reduced exacerbations, and, enhanced overall well-being for patients.

Reduced Hospital Admissions and Healthcare Costs: Effective respiratory projects helped in alleviate the burden on healthcare systems by reducing the need for hospital admissions and emergency department visits related to respiratory conditions. As per NCBI, the cost of per patient for respiratory diseases is around 10,000 depending on severity. Through preventive measures, early intervention, and comprehensive disease management strategies, these projects contributed to cost savings for both patients and healthcare providers.

Community Health Promotion: These projects often extend beyond clinical settings to engage with communities and raise awareness about respiratory health issues. By promoting preventive measures, encouraging lifestyle modifications, and providing access to resources and support networks, these projects empower individuals to take proactive steps in managing their respiratory health, thus fostering a culture of health and well-being within the community.

Advancements in Healthcare Research: The projects incorporate research components aimed at expanding scientific knowledge, improving treatment modalities, and informing evidence-based practices. Through clinical trials, observational studies, and data analysis, these projects contribute valuable insights into the pathophysiology, epidemiology, and management of respiratory conditions, driving advancements in the field of respiratory medicine.

Sustainability:

The project demonstrates sustainability through various strategic approaches. Firstly, it forges partnerships with existing healthcare units and secures external support from organizations like Cipla for equipment procurement, ensuring resource availability and longevity. Integrating Pulmonary Rehabilitation Centres (PRCs) into the existing healthcare infrastructure further solidifies sustainability, facilitating long-term provision and scalability of services. The hospital's accreditation, government partnerships, and involvement in charitable activities underscore its commitment to sustainability. This commitment is also evident in its integration of the project into ongoing operations and utilization of existing resources.

Leveraging a successful model from Bharti Medical College Hospital and integrating with Health Management Information Systems (HMIS) for monitoring and evaluation further promotes sustainability by enabling continuous improvement and adaptation to evolving patient needs. Additionally, the establishment of community rehabilitation centre's operational research, and undergraduate student training initiatives all contribute to sustainability. They do so by integrating these activities into ongoing healthcare services and academic programs, ensuring long-term impact and capacity building. Overall, the project's comprehensive approach to sustainability encompasses resource management, partnership development, organizational integration, and ongoing evaluation, ensuring its enduring impact on patient care and healthcare delivery.

Coherence:

The Projects aligns with overarching goals of enhancing healthcare access and outcomes, particularly for patients grappling with respiratory conditions, which resonate with SDG 3 (Good Health and Wellbeing). The National Health Policy of India 2017 has a special focus on the preventive, promotive, and rehabilitative aspects. It intends to upgrade the existing healthcare infrastructure to provide a comprehensive set of preventives, promotive, curative, and rehabilitative services. The Policy sets an objective to reduce premature mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases by 25% by 2025.

Targeting hospitals with substantial patient volumes and specialized services underscores the initiative's coherence with the community's specific healthcare needs. Moreover, the project collaborated with the hospital's overarching mission of providing quality healthcare services and engaging in charitable activity for community benefit, focusing particularly on COPD/Asthma care while complementing existing initiatives and partnerships. It also relates with broader objectives of improving healthcare delivery and tackling emerging health challenges like post-COVID symptoms and chronic respiratory disorders by leveraging multidisciplinary expertise and sharing best practices, thus enhancing healthcare access and quality.

Furthermore, the proposed activities align closely with goals of enhancing healthcare delivery, research, and education by addressing the unique needs of patients with respiratory illnesses, conducting vital research, and nurturing the next generation of healthcare professionals, thereby fostering improved health outcomes, and advancing medical knowledge in a coherent and impactful manner.

Patient support

The healthcare industry in India is expected to reach \$50 billion by 2025, driven by rising incomes, greater health awareness, and increasing lifestyle diseases. Consequently, prioritizing patient support emerges as one of the most critical factors for fostering growth. Patient support starts with having a conversation with the patient. It encompasses a range of services, resources, and initiatives aimed at aiding, guidance, and encouragement to individuals as they navigate various aspects of their healthcare journey. These services are designed to address the physical, emotional, and practical needs of patients, helping them cope with illness, manage treatment, and improve their overall quality of life. Patient support can have several forms, including:

- Information and Education: Providing patients with accurate, reliable information about their condition, treatment options, medication, and self-care strategies empowers them to make informed decisions about their health.
- Emotional Support: Dealing with a medical diagnosis or chronic illness can be emotionally challenging. Patient support programs offer a safe space for patients to express their feelings, share experiences, and receive empathy and encouragement from others facing similar circumstances.
- Practical Assistance: Patients may encounter various practical challenges, such as navigating healthcare systems, managing appointments, understanding insurance coverage, or accessing community resources. Patient support initiatives can provide practical assistance and guidance to help patients overcome these obstacles.
- Financial Support: Healthcare expenses can place a significant burden on patients and their families. some patient support programs help with navigating insurance coverage, accessing financial resources, or providing financial aid for medical expenses.
- Advocacy: Patient advocacy involves representing the interests of patients within healthcare systems and advocating for policies and practices that prioritize patient well-being. Patient support initiatives may engage in advocacy efforts to ensure that patients receive high-quality, equitable care and have their voices heard in healthcare decision-making processes.

Patient care refers to prevention, treatment, and management of illness through services provided by healthcare professionals for the overall physical and mental well-being of patients. A high-quality patient care will have a positive effect on health outcomes and contribute to a better patient recovery experience by ensuring the dignity and well-being and keeping the patient comfortable and happy¹⁰

Cipla, in collaboration with multiple implementation partners, had initiated efforts to enhance patient support system in the field of cancer. These projects helped fill gaps in patient support. Additionally, these initiatives had made healthcare systems better prepared for critical challenges across Delhi, Gujrat Maharashtra & Karnataka. Below is a table showing the projects undertaken by the Cipla through its implementation agency for strengthening the patient support.



오늘은 것은 안감구성

¹⁰ www.patients.org.au



#	Implementation partner	Key Project	Key activities
	Sankalp India Foundation (GAF)	Supporting 30+ Children for Thalassemia Bone Marrow Transplant in Ahmedabad and Bengaluru	 Assess the patient eligibility, readiness and conduct a thorough medical evaluations. Administer preparatory injections and necessary test. Supplying medications, disposable items, and diagnostic resources for patients enrolled at the day care Center. Conduct Bone Marrow Transplantation and Support Iron Chelation Medicines Ensure access to iron chelation medicines. Implement structured follow-up protocol and collect the clinical data
	Arpan Thalassemia Society (GAF)	Support for providing Nucleic Acid tested (NAT test) & Leucodepleted blood transfusion to 1200+ children & adult living with Thalassemia Major along with conducting Thalassemia minor testing for 1400+ young blood donors to facilitate early diagnosis of thalassemia.	 Enrolling children diagnosed with major Thalassemia. Offering NAT tested and Leucodepleted blood transfusions for both children and adults. Conducting follow-up care after blood transfusions for both children and adults. Testing young blood donor for early diagnosis.
	Indian Cancer Society (GAF)	800+ individual were supported for Breast Cancer Care clinic and 300+ patient support program group meeting were conducted.	 women are supported through Silicon prosthesis (second hand) from nurses of United Kingdom. patients were supported through medical grant for Maximum survivorship. Different session of lymphedema press
	Cipla	One time fund support to individuals for Bone Marrow Transplantation, Acute Lymphoblastic Leukaemia, Classical Hodgkin's Lymphoma, Juvenile leukaemia, Thalassemia, aplastic Anaemia, and other live saving treatment	-

Theory of change-Patient support

INPUTS/ACTIVITY	OUTPUTS	OUTCOME	IMPACT
Funding support from Cipla Foundation for establishing NAT testing, leucodepletion, Thalassemia minor testing and	1200+ blood transfusions with NAT tested and Leucodepleted blood, 30+ children with major thalassemia undergo successful Bone Marrow Transplantation, 1400+ young blood donors tested for Thalassemia minor and 150+ women supported with second- hand silicon prostheses.	Enhanced accessibility of resources, information, and services for individuals across India.	Improved health and well-being of Thalassemia patients receiving safe blood transfusions.
Bone marrow Transfusion Medical expertise and facilities at Care Institute of Medical Sciences, Ahmedabad, Bhagwan Mahaveer Jain Hospital, Indian cancer society		Permanently cured children who no longer face the challenges of major thalassemia &Reduction in the mortality rate of children with thalassemia.	
Ensuring comprehensive support, the initiative includes the training of staff members	Regular Counselling sessions conducted to provide emotional support and guidance to patients and their family member	Enhanced self-esteem for the cancer survivors.	Strengthening of the support ecosystem for thalassemia and breast cancer individuals, leading to a more inclusive society.
on counselling techniques, assistive technologies, legal provisions, and relevant policies		Reduced risk of Transfusion Transmitted Infections and complications for Thalassemia patients.	
Develop and maintain a comprehensive database of resources, services, and information relevant for thalassaemia and breast cancer patient	Educating the patients on the government schemes for financial support	Increased awareness and understanding among the population about Thalassemia and breast cancer	Reduced instances of Thalassemia births through early diagnosis and counselling. Enhanced survivorship and improved quality of life for cancer patients

Relevance:

Cancer is an increasing health challenge in India, impacting lives across diverse socio-economic and geographies of the country. The burden of cancer in the country is on the rise, with an increasing number of cases reported each year. The projected cancer burden in India is expected to rise from 26.7 million DALYs (adjusted mortality to incidence) in 2021 to 29.8 million in 2025¹¹.

In India, every year 10,000 children are being born with hematological malignancies such as Lymphoma Leukemia and thalassemia which accounts for 10% of the total world incidence of thalassemia-affected children and one in eight of thalassemia carriers live in India. There are nearly 42 million carriers of the β -thalassemia trait. For supportive care and management of a child with thalassemia major nearly 100,000–250,000 INR/year is required depending on the age and presence of complications.12

The project aims to address critical needs among children suffering from major thalassemia, a lifethreatening condition with high mortality rates in India. Due to the substantial number of children born with thalassemia each year and limited access to curative treatments, the project is crucial for providing life-saving medical interventions to vulnerable populations.

One key aspect focused on providing safer blood transfusions for thalassemia patients. By implementing NAT testing and leucodepletion, the project aims to reduce the risk of transfusion-transmitted infections and mitigate potential side effects of white blood cells. Partnering with Arpan Blood Bank ensures the technical support necessary to maintain the quality and safety of blood transfusions. Additionally, the Thalassemia Testing Program targets early diagnosis and prevention of thalassemia births by screening for carrier status in the general population. This initiative-taking approach is essential for reducing the burden of thalassemia witin affected families and communities. Moreover, the project extends support to individuals affected by cancer, addressing their needs for awareness, emotional support, financial assistance, nutritional aid, and restoration of body image. Recognizing the significant impact of cancer on both individuals and families, this comprehensive approach aims to cater to the multifaceted requirements of cancer patients and survivors.

Effectiveness:

The project highlighted its effectiveness through its implementation of bone marrow transplantation (BMT) as a curative solution for children afflicted with major thalassemia, a measure that significantly enhances their long-term health prospects and overall quality of life. Partnering with esteemed medical institutions like the Care Institute of Medical Sciences and the Cure2Children Foundation ensures access to top-tier healthcare services and technical expertise necessary for successful BM Procedures.

Simultaneously, the project demonstrates efficiency by tailoring its support to thalassemia major patients from economically disadvantaged backgrounds, effectively addressing their specific healthcare requirements in a cost-conscious manner. Offering free blood transfusions further maximizes intervention efficiency, guaranteeing access to crucial healthcare services for vulnerable demographics. Moreover, by incorporating thalassemia minor testing for prospective young blood donors, the project adeptly identifies individuals at risk of passing on thalassemia to their offspring. Augmenting this with genetic counselling serves to enrich program effectiveness by educating individuals about the implications of thalassemia carrier status and offering strategies for prevention.

Additionally, the project exhibits effectiveness through its comprehensive support services, encompassing screening facilities, emotional support groups, nutritional aid, and financial assistance for diagnostic procedures and treatment expenses. This comprehensive approach adeptly caters to the varied needs of cancer patients and survivors, thereby enhancing their quality of life and bolstering survival outcomes.

Efficiency:

¹¹ www.ncdirindia.org

¹² www.ncbi.nlm.nih.gov

The project demonstrates efficient resource utilization through different strategic approaches. Firstly, it provides financial assistance to children from low-income families for bone marrow transplantation (BMT) procedures, easing the burden of treatment costs while ensuring access to specialized care. Leveraging partnerships with reputable medical institutions and organizations further enhances resource optimization, facilitating streamlined access to necessary services for children in need.

Additionally, the project targets 1400+ young blood donors for thalassemia minor testing, effectively maximizing resource impact by identifying carriers and preventing thalassemia births. Through early diagnosis and genetic counselling, the program promotes cost-effective interventions, optimizing resource allocation towards thalassemia prevention efforts.

Furthermore, the project efficiently allocates funds towards diagnostic procedures and treatment expenses for suspected cancer patients, facilitating timely diagnosis and preliminary treatment. By leveraging resources and partnerships, such as providing second-hand silicon prostheses and bras from nurses in the UK, the project optimizes resource allocation to maximize intervention impact across various facets of cancer care.

Impact:

The project has positively impacted the lives of individuals across various healthcare domains. Firstly, by offering bone marrow transplantation (BMT) to 30+ children suffering from major thalassemia, it provides a pathway to a permanent cure, thereby averting further health complications and reducing mortality rates within the affected community. This comprehensive approach addresses the root cause of the condition, promising improved overall health outcomes for both the children and their families.

Moreover, through the implementation of NAT-tested and Leucodepleted blood transfusions, 1200+ significantly enhance the health outcomes and quality of life for thalassemia patients. By mitigating the risks associated with transfusion-transmitted infections and complications, this intervention stands to positively impact the well-being of patients and their families, fostering a healthier community. The Thalassemia Testing of 1400+ is poised to prevent thalassemia baby births by identifying carriers and providing crucial genetic counselling services. By empowering individuals with knowledge about their carrier status and family planning options, the program plays a pivotal role in reducing the incidence of thalassemia within the community, thereby improving health outcomes and quality of life for future generations.

The project's comprehensive support for individuals affected by cancer, including emotional support, body image restoration, and financial assistance for diagnostic and treatment expenses, underscores its commitment to enhancing overall well-being and survivorship. Annual seminars and lymphedema sessions further contribute to raising awareness and improving access to supportive care services, ensuring an integrated approach to cancer care that positively impacts individuals and families alike.

Sustainability:

The project has been sustainable through its multifaceted approach to addressing thalassemia and cancer care. Firstly, by offering bone marrow transplantation (BMT) as a long-term solution for thalassemia, it not only provides a permanent cure for eligible children but also fosters sustainability within affected families and communities. Collaborating with esteemed medical institutions and organizations ensures comprehensive care, encompassing counselling, transplantation, and post-transplantation support, thereby maximizing the success and sustainability of BMT procedures.

Additionally, the project promotes sustainability by providing enduring support services and interventions for individuals affected by cancer. By addressing their emotional, financial, and practical needs, the project cultivates resilience and self-sufficiency among patients and survivors, contributing to their long-term well-being and survivorship.

Furthermore, in the context of cancer sustainability, the project's emphasis on genetic counselling and family planning not only prevents thalassemia births but also lays the foundation for future generations to

make informed decisions, thereby ensuring sustained reductions in the incidence of the condition within the community.

Coherence:

The project's initiatives align seamlessly with broader development objectives, particularly in promoting health and well-being among vulnerable populations impacted by major thalassemia, thereby supporting national level policy and Sustainable Development Goal (SDG) targets. By providing bone marrow transplantation (BMT) as a curative option and collaborating with established medical institutions and organizations, the project not only enhances access to quality healthcare services but also aligns with national policies aimed at improving health outcomes for children in need.

Furthermore, the project's comprehensive support services not only address the immediate needs of cancer patients and survivors but also contribute to sustained improvements in health outcomes and quality of life, aligning with national strategies for healthcare provision and SDG 3 on ensuring healthy lives and promoting well-being for all at all ages. project maximizes its impact in promoting health equity and enhancing the overall well-being of vulnerable populations affected by major thalassemia and cancer.

As per national policy under the programme For Prevention & Control of Cancer, Diabetes, Cardiovascular Diseases & Stroke (NPCDCS) was launched in 2010 with focus on strengthening infrastructure, human resource development, health promotion, early diagnosis, management, and referral. As on March 2016, the programme is under implementation in all 36 States/UTs. A total of 298 District NCD Cells and 293 District NCD Clinics have been established in the country. Also, there are 103 functional Cardiac Care Uns for emergency cardiac care and 64 Day-Care Centres for Cancer care at the district levels in the country.

During 2015-2016, more than 1.29 crore persons have been screened in the designated NCD Clinics. Among these NCD Clinic attendees, around 8% were diagnosed to be Diabetics and 12% were Hypertensives. Also, around 90,000 persons were diagnosed to be suffering from cardiovascular diseases and over 13,000 persons were detected to be having common Cancers (including Oral, Cervical and Breast Cancers) among them. During 2015-2016, around 96 lakh persons were screened under various outreach activities for common NCDs (in Camps and PHC/SC), and they were referred to higher Centres for diagnosis and management.¹³

Overall, the project's comprehensive approach to cancer care and support is coherent with broader objectives of promoting health, well-being, and social inclusion. By addressing the multifaceted needs of cancer patients and survivors, including emotional support, financial assistance, and practical interventions, the project contributes to enhancing access to quality healthcare services, improving survivorship outcomes, and mitigating the socioeconomic impact of cancer on affected individuals and families. This alignment with national-level policies and SDG targets underscores the project's significance in advancing broader development agendas related to health and well-being.

Strengthening health systems

Health systems play a pivotal role in ensuring the well-being of individuals and communities, serving as the backbone of healthcare delivery worldwide. A robust health system encompasses a multitude of components, including healthcare infrastructure, personnel, financing mechanisms, governance structures, and service delivery mechanisms. However, the effectiveness of a health system is not only measured by its ability to provide medical care but also by its capacity to promote health equity, accessibility, and community participation.

In recent years, there has been an increasing recognition of the need to strengthen health systems, particularly in the context of addressing the evolving healthcare needs of diverse populations. This recognition is underscored by the complex interplay of factors such as demographic shifts, epidemiological transitions, technological advancements, and socio-economic disparities, all of which

¹³ nhm.gov.in

exert profound impacts on health outcomes at the individual and community levels. Cipla has contributed to advancing healthcare access and delivery, particularly in underserved communities across India with their continuous commitment to social responsibility, Cipla is dedicated to enhancing health systems to better serve the needs of communities worldwide.

The Imperative of Strengthening Health Systems:

The imperative of strengthening health systems arises from the imperative to ensure that every individual has access to timely, affordable, and quality healthcare services. A robust health system serves as a cornerstone for achieving universal health coverage (UHC), a goal enshrined in the Sustainable Development Goals (SDGs). UHC entails ensuring that all individuals and communities receive the health services they need without suffering financial hardship, emphasizing the importance of equitable access to essential healthcare services.

Moreover, the COVID-19 pandemic has brought to the forefront the vulnerabilities and gaps within health systems worldwide. The pandemic has underscored the critical importance of preparedness, resilience, and adaptability in health systems to effectively respond to emergent health threats and crises. From strained healthcare infrastructure to overwhelmed healthcare personnel, the pandemic has exposed systemic weaknesses that must be addressed through comprehensive health system strengthening efforts.

Under this focus area, Cipla collaborated with the several public health centre and community health centre for enhancing healthcare accessibility for the community in need. The project's primary focus lies in ensuring that communities from all levels of society have access to essential medical services and facilities for spending a normal life. Through various collaborations, Cipla limited through its partner is to provide support for the establishment and maintenance of the day-care unit, facilitating medical care, monitoring, supplying equipment's to PHCs and CHCs for the treatment for requiring specialized attention like thalassemia, Pregnancy related issues etc. CF has also undertaken various self-implemented projects to support and strengthen the health systems across Himachal Pradesh, Madhya Pradesh & Maharashtra. The table below lists the many program activities undertaken by Cipla in collaboration with various program partners.





#	Implementation Partner	Key Project	Key Activities
	Bai Jerbai Wadia Hospital for Children (GAF)	 Establishment and support of Thalassemia Day-Care Unit at Bai Jerbai Wadia Hospital for a capacity of 30 Children 	 Financial Assistance for construction of Day care unit Providing regular blood transfusions to thalassemia patients as per their treatment plan and transfusion schedule. Providing counselling and support services to help patients and families cope with the challenges of living with thalassemia Scheduling of regular follow-up appointments to monitor patients' progress, adjust treatment plans, and address any emerging health issues
	Cipla (Self implemented)	• Strengthen health services by providing medical equipment to health care institutions i.e., Civil Hospital, Community Health Centres (CHC), Primary Health Centre of Indore and Dhar District	 Supported with medical equipment's such as Oxygen Concentrator (POC) Point of Care Blood Glucose Monitoring System Blood Glucose Test Strip & Lancet Blood Cell Counter 3 Parts Model-BC 20s (Mindray) Wheelchair Stretcher
		Supporting Health Infrastructure and Renewable Energy	 Installation of sonography equipment's for ladies 150 Solar Lights will be installed in Dehra Block of Kangra District and 20 Solar lights will be installed in BBN area Installation of outdoor gym equipment's
		 Strengthening Local Health Centres around Patalganga 	 Supported with medical equipment's such as Suction Catheter & Urine Catheter
		 Strengthening Health Care Services by renovating hospital infrastructure 	 Renovation work has been done here along with electrical fittings

Theory of change- Strengthening Health Systems

INPUTS/ACTIVITY	OUTPUTS	OUTCOME	IMPACT
Funding from Cipla Foundation for basic infrastructure at different hospital Conducting of training programs for nursing staff to improve pre-transplant infection control and enhance transplant outcomes	Increased accessibility to healthcare services	Enhanced capacity for ante- natal care and monitoring foetal growth locally, reducing the need for travel to distant city hospitals	Localized access to Sonography services reduces the burden on city hospitals, enhancing their efficiency. Decreased refusal of registration for new Thalassemia cases due to improved facilities and dedicated care. Improved health outcomes and physical fitness contribute to a healthier and more empowered rural community. Enhanced care contributes to a longer and healthier lifespan for the patients.
	Installation of medical equipment at the Primary		
	Implementation of measures to reduce pre-transplant	Improved Health outcome for individuals in local community	
Building partnerships with suppliers for the provision of quality medical equipment and outdoor gym equipment	nursing care.	Empowered community members with knowledge for preventive healthcare, leading to improved overall health.	
Training of nurses and medical staff to provide specialized care in the new unit in the hospital	Health awareness initiatives were conducted, and informational materials were distributed to increased awareness	Decreased complications such as poor growth, cardiac dysfunction, diabetes mellitus, and multiple endocrine abnormalities	
Identified needs in terms of affordability, availability, quality, and accessibility of health services in local communities.	Establishment of a specialized (Day care) unit, medical& gym equipment's and 150 solar lights at different medical facilities.	Improved accessibility to healthcare services ,gym services and Improved safety and security in villages with the installation of solar lights.	Strengthened health services and community amenities contribute to overall community development.

Relevance:

Primary health care is a whole-of-society approach to health and well-being centred on the needs and preferences of individuals, families, and communities. It addresses the broader determinants of health and focuses on the comprehensive and interrelated aspects of physical, mental, and social health and wellbeing. India has a vast public health infrastructure with 23,391 primary health centres (PHCs) and 145,894 subcentres providing health services to 72.2% of the country's population living in rural areas.¹⁴ While the numbers may appear impressive, adequate functional status in terms of physical infrastructure, manpower, equipment, drugs, and other logistical supplies is not enough to ensure quality services for a population of 1.42 billion.

CF has improving healthcare services in rural areas by providing essential diagnostic equipment, such as sonography machines, to Primary Health Centres like the one in Villages of Dhar and Patalganga. By directly addressing the lack of infrastructure and diagnostic facilities, this initiative aims to enhance access to antenatal care for pregnant women and diagnostic services for other patients in rural communities and it also emphasizes the significance of strengthening healthcare institutions like Community Health Centres (CHCs) in rural areas, recognizing their pivotal role as referral centres for specialized healthcare services. By ensuring these institutions have the necessary facilities and equipment, particularly to cater to underprivileged or poor communities, the proposal seeks to enhance healthcare access and outcomes for a significant population. Apart from this CF has contributed towards Thalassemia which has become quite prevalent in India.

In India, every year 10,000 children are being born with thalassemia which accounts for 10% of the total world incidence of thalassemia-affected children and one in eight of thalassemia carriers live in India. The prevalence of thalassemia ranges between 0.6% and 15% across India. In India, there are nearly 42 million carriers of the β -thalassemia trait¹⁵.

The need for a day-care unit with trained personnel for children with Thalassemia is important due to the significant number of cases increase at the hospital and the lack of specialized care for these children, acknowledging the inadequacy of the current setup and its implications for patient care.

Effectiveness:

Strengthen health infrastructure and improve healthcare access, several initiatives have been implemented which are effective in terms of helping the community in need. The contribution of CF in equipping Primary Health Centres (PHCs) with sonography equipment is helping the local population. Pregnant women and other patients have no longer need to travel long distances to city hospitals for sonography tests, thereby reducing the infant mortality and the burden on both patients and city hospitals.

Furthermore, the establishment of a dedicated day-care unit with trained personnel, under the supervision of the Director Paediatric Haematology-Oncology, has significantly enhanced the effectiveness of care for children with Thalassemia. This setup has led to lower rates of traditionally observed complications such as poor growth, cardiac dysfunction, and early mortality. By providing focused attention and timely interventions, this initiative has improved the quality of care and children are living near normal life. These implementations collectively contribute to strengthening the health infrastructure and improving healthcare access, leading to better health outcomes for the community.

Efficiency:

Efficiency is a crucial aspect of strengthening health infrastructure and improving healthcare delivery. Achieve this CF is focusing on Community Health Centres (CHCs) for equipment support, recognizing their role as centralized points for healthcare services in their respective location. This approach maximizes the impact on healthcare delivery by optimizing resource allocation and reducing the need for patients to travel long distances for specialized care. Similarly, investing in sonography equipment for

¹⁴ www.who.int/india

¹⁵ www.ncbi.nlm.nih.gov

PHCs is a cost-effective solution compared to the ongoing costs associated with patients traveling to city hospitals for diagnostic tests in addition to the overhead costs charged by private hospitals. By bringing essential healthcare services closer to the community, this investment optimizes resource allocation and reduces the strain on city hospitals.

Furthermore, while the dedicated day-care unit may require additional resources initially, but it has enhanced efficiency eventually. By preventing complications, reducing hospitalizations, and improving overall health outcomes for children with Thalassemia, this contribution in specialized care is helping children to lead a near normal life. The Day care addresses the burden of managing complications associated with inadequate care, improving the efficiency of healthcare delivery. These initiatives focus on efficiency in strengthening health infrastructure, ensuring that resources utilized optimally to enhance healthcare access and delivery for communities.

Impact:

Strengthen the healthcare systems is crucial for community well-being globally. Initiatives such as dedicated day-care units for conditions like Thalassemia, PHCs and CHCs with essential medical equipment like sonography machine, Oxygen Concentrator (POC) Point of Care, Blood Glucose Monitoring System, Blood Glucose Test Strip & Lancet, Blood Cell Counter 3 Parts Model-BC 20s (Mindray), Wheelchair Stretcher etc are pivotal. By ensuring timely access to diagnostic services and specialized care, CHCs enhance maternal and child health outcomes and overall community healthcare. Improved PHC services facilitate early detection and management of health conditions, contributing to reduced morbidity and mortality rates. Together, these interventions pave the path for a healthier future, fostering resilience and well-being across communities. By strengthening CHCs with essential medical equipment, improving PHCs and establishing a dedicated Day-Care Unit for Thalassemia Management, there is a significant enhancement of maternal and child health, alongside overall healthcare outcomes for the community. This approach demonstrates substantial positive effects on the health and well-being of the local population, leading to significant improvements in proper growth, decreased morbidities, prevention of early mortality, and an overall enhanced quality of life for children with Thalassemia.

Sustainability:

The long-term sustainability of healthcare initiatives like the dedicated day-care unit for children with Thalassemia relies on consistent support in funding, staffing, infrastructure and regular visit from the patient according to transfusions cycle. Beyond immediate healthcare needs, ensuring enduring benefits requires ongoing investment in maintenance, training, and capacity building. Integration of strengthened Community Health Centres (CHCs) into the broader healthcare system fosters collaboration and coordination. Additionally, initiatives promoting environmental sustainability, such as installing solar lights in villages, solar heating water systems contribute to long-term community well-being. By prioritizing sustainability across funding, infrastructure, and partnerships, the initiative led by the Cipla not only addresses current healthcare challenges but also lays the groundwork for lasting positive impacts on health outcomes and environmental stewardship in local communities.

Coherence:

Project intervention is essential for significantly improving health outcomes and the quality of life for the community. It also aligns with Sustainable Development Goals (SDGs) 3 (Good Health and Well-being) and 13 (Climate Action) by enhancing healthcare access and promoting the use of renewable energy through the installation of solar lights in villages. By addressing the specific needs and priorities identified by local community and Panchayat representatives, the proposal resonates with the national policy of health for the community and Thalassemia management. Additionally, by targeting Community Health Centres (CHCs), which are pivotal in the rural healthcare network, the proposal underscores coherence with the priorities and requirements of the communities it seeks to serve, further supporting SDG 3 objectives of improving access to quality healthcare for underprivileged populations. Establishing a dedicated day-care unit for children with Thalassemia at Bai Jerbai Wadia Hospital for Children not only

aligns with the project's mission of providing excellent quality care to children from all economic backgrounds but also contributes to broader goals of enhancing paediatric healthcare and alleviating the burden of chronic diseases in the community.

As per national health policy 2017 to strengthen the health systems, several key strategies have been outlined which are as follows:¹⁶

a. Increase health expenditure by Government as a percentage of GDP from the existing 1.15% to 2.5 % by 2025.

b. Increase State sector health spending to > 8% of their budget by 2020.

c. Decrease in proportion of households facing catastrophic health expenditure from the current levels by 25%, by 2025.

d. Ensure availability of paramedics and doctors as per Indian Public Health Standard (IPHS) norm in high priority districts by 2020.

e. Increase community health volunteers to population ratio as per IPHS norm, in high priority districts by 2025.

f. Establish primary and secondary care facility as per norms in high priority districts (population as well as time to reach norms) by 2025.

The Projects not only addresses immediate healthcare challenges but also contributes to sustainable development. It aligns with national health policies and SDG targets while meeting the unique needs of the community and advancing paediatric healthcare. By targeting CHCs, which serve as critical nodes in the rural healthcare network, the project demonstrates coherence with the priorities and needs of the communities it aims to serve. Upgrading healthcare facilities, expanding access to essential medical equipment and supplies, and enhancing telemedicine and digital health technologies to bridge geographical and logistical barriers to healthcare access are imperative for strengthening health systems toward the community. Empowering communities and addressing systemic challenges through comprehensive strategies can make health systems more resilient, responsive, and equitable. This ensures that no one is left behind in the journey toward better health and well-being.

¹⁶ main.mohfw.gov.in

Community Doorstep Health

In today's rapidly evolving healthcare landscape, ensuring access to essential medical services is paramount, particularly for communities residing in remote or underserved areas. Community Doorstep Health emerged as transformative initiative designed to bring comprehensive healthcare services directly to the doorstep of those who need it most. By transcending geographical barriers and leveraging innovative approaches, Community Doorstep Health stands poised to revolutionize healthcare delivery, offering a lifeline to individuals and families previously marginalized by limited access to medical care.

At its core, Community Doorstep Health embodies the ethos of inclusivity and equity, recognizing that health is a fundamental human right that should be accessible to all, regardless of geographic location or socioeconomic status. By mobilizing healthcare resources and expertise, this initiative endeavours to bridge the gap between healthcare providers and communities, fostering a collaborative environment where individuals are empowered to take charge of their health and well-being.

Through a multifaceted approach, Community Doorstep Health aims to address not only the immediate healthcare needs of communities but also the underlying social determinants of health that perpetuate disparities. By offering a spectrum of services ranging from preventive care and health education to diagnostic screenings and treatment interventions, this initiative seeks to create a holistic healthcare ecosystem that nurtures wellness and resilience at the grassroots level.

Primary health care is a whole-of-society approach to health and well-being centred on the needs and preferences of individuals, families, and communities. It addresses the broader determinants of health and focuses on the comprehensive and interrelated aspects of physical, mental, and social health and wellbeing. ¹⁷ Below is a table showing the projects undertaken by the Cipla to strengthen community Doorstep health across Himachal Pradesh, Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh & Karnataka



¹⁷ www.who.int

#	Implementation partner		Activities
1	HelpAge India (GAF)	 Mobile Health Care Unit Pithampur Mobile Healthcare Unit - Baddi Mobile Healthcare Unit - Bommasandra Mobile Healthcare Unit - Kurkumbh) Mobile Healthcare Unit Setting up "Patient Helpdesk" at SGPGI Lucknow through HelpAge India. 	 Offering primary healthcare services including medical consultations, provision of complimentary medications, basic diagnostic testing, home care for bedridden individuals, sensitization and training sessions, preventive health education programs, referral services for specialized treatments, connecting beneficiaries to government programs, and conducting regular health camps in non- targeted villages.
2	Centre For Advanced Research & Development (GAF)	 Improving Nutritional Status and Services of 17 ICDS centres of 4 villages by enhancing & strengthening, tracking the beneficiaries, proper implementation & monitoring. Project " Bhavan"- Construction of 2 Anganwadi Centres at Kallibillod village 	 Providing nutritious meals, interactive play activities for early childhood development during home visits, monitoring growth, and offering counselling to caregivers. Conducting awareness sessions on COVID-appropriate behaviour, non-communicable diseases (NCDs), and adolescent girls' health and hygiene. Support in infrastructure development in 2 Anganwadi
3	Salaam Bombay Foundation	Preventive Health Care Program for 'at-risk' adolescents in Municipal and Govt schools of MCGM	 Conducting online sessions on tobacco control, nutrition, and mental health for underprivileged adolescents. Engaging parents, teachers, and community members for promoting adolescent health and wellbeing. Sensitize policymakers to advocate for safe environments for adolescents
4	Himalayan Social Institute (GAF)	 Covid Prevention and Support in Slums through Balvatika 	 1822 Oral Polio Vaccine given to the children. Support for 296 school going student for their online classes. awareness session with slum community. The topics of the meeting were Awareness on COVID-19, Personal hygiene of the adolescent girl's and Safe delivery of pregnant women etc
	Basic Healthcare Services (BHS) (GAF)	 Creches, communities and caregivers: multi-pronged actions for promoting growth and development of tribal children from southern Rajasthan through Basic Health Centre (BHS). Phase Jan- March 2022: Creches, communities and caregivers: multi-pronged actions for promoting growth and development of tribal children from southern Rajasthan through Basic Health Centre (BHS). 	 Establishing Phulwari centres to provide nutritious meals and childcare for children aged 6 months to 5 years. Conducting education sessions for mothers and caregivers on childcare practices and nutrition, alleviating the burden of cooking with firewood. Engage elder siblings in caregiving responsibilities while ensuring access to education and play opportunities, fostering community support and participation in the program.
5	Cipla	 Provision of Tata Nest Modular Sanitation blocks at four Schools located in Kurkumbh & Surrounding area. 	 Modular Toilet Unit was installed in the school. This modern, durable & one stop sanitation solution provides the waste management, electrical, and plumbing fittings which are user friendly.

Relevance:

According to the Rural Health Statistics 2021-22 report, As on 31st March, 2021, there are 156101 and 1718 Sub Centres (SC), 25140 and 5439 Primary Health Centres (PHCs) and 5481 and 470 Community Health Centres (CHCs) respectively which are functioning in rural and urban areas of the country In India¹⁸ Despite having such numbers, India has consistently lagged behind in ensuring the last-mile delivery of primary healthcare, making it inaccessible. The implemented projects by Cipla and its efforts towards community health initiatives is helping communities in rural area.

These projects target the urgent healthcare needs of marginalized communities living in remote villages with limited access to local health facilities by sending a mobile health van in rural areas. In these areas, chronic diseases such as joint pain, diabetes, hypertension, and asthma are prevalent among senior citizens, underscoring the necessity of providing basic healthcare services to enhance health outcomes and quality of life. Furthermore, few projects are designed in a way to fill critical gaps in health and nutrition services for vulnerable demographics in Madhya Pradesh, where malnutrition rates are alarmingly high. By targeting children, adolescent girls, and pregnant/lactating mothers, the initiative aims to improve access to essential healthcare and nutrition services, particularly for women and children who face significant health disparities in the region.

Additionally, few projects tackle the pressing issue of inadequate sanitation facilities in government and government-aided schools serving rural communities. By addressing this deficiency, the project promotes health and hygiene among students and teachers, with a particular focus on those from marginalized backgrounds. This comprehensive approach not only enhances the overall well-being of the school community but also contributes to broader efforts to improve public health infrastructure and standards in rural areas.

Effectiveness:

Access to healthcare services is a fundamental determinant of health outcomes. However, many individuals, particularly those in underserved communities, face significant challenges in accessing timely and adequate care. Factors such as geographical remoteness, financial constraints, and lack of awareness often contribute to disparities in healthcare access and outcomes.

The Mobile health vans project has shown remarkable effectiveness through its provision of essential healthcare services, including medical consultations, free medicines, required diagnostics, and home care for most needy and bedridden patients, among other basic interventions. By both expanding its reach to new villages and sustaining operations in existing ones during covid pandemic this project has reach to a larger number of beneficiaries, thus enhancing healthcare delivery across the region.

Furthermore, the project has demonstrated effectiveness over the years by supporting Anganwadi Centres (AWCs) with capacity building, children enrolment initiatives, and community sensitization on government schemes. By extending its successful initiatives to additional AWCs, the project has achieved significant outcomes in terms of improving access to healthcare and nutritional services for communities. In addition to healthcare services, the project also showcases effectiveness by proposing the installation of sanitation blocks tailored to the specific needs of each school, as assessed during need assessment and recommended by Tata Nest. By ensuring access to proper sanitation facilities, the project has substantially reduced open defecation and elevate overall hygiene standards within schools, thereby positively impacting the health and well-being of students and staff alike. This comprehensive approach underscores the project's commitment to improving both healthcare and sanitation infrastructure, ultimately contributing to better health outcomes and quality of life in the region.

Efficiency:

Efficiency in healthcare delivery involves achieving the best possible outcomes with the least number of resources expended. Traditional healthcare models often face challenges related to resource allocation, access, and sustainability. In response, community doorstep health programs have gained traction for

¹⁸ main.mohfw.gov.in
their ability to streamline service delivery, reduce administrative overhead, and target interventions to where they are most needed.

These projects demonstrate efficiency through its a utilization of existing infrastructure and resources, such as the Mobile Health Unit (MHU) and its partnership with Cipla, to deliver healthcare services effectively to remote villages. By leveraging these resources, the project minimizes the need for additional investments while maximizing outreach and impact on patient care. Moreover, the project's emphasis on preventive health awareness programs and referral services for specialty treatments further optimizes resource utilization, ensuring that resources are directed towards initiatives that yield the greatest benefit in improving community health. The project has also managed to refer/ enrol patient for different govt health programme including "Ayushman Bharat".

Additionally, few project capitalizes on established partnerships and resources, including support from Cipla. By building upon these foundations and focusing efforts on targeted Anganwadi Centres (AWCs) in different location, the project enhances resource allocation and implementation efficiency, streamlining efforts to effectively address healthcare needs in the region.

Furthermore, the project demonstrates efficiency by leveraging partnerships with Cipla and Tata Nest to conduct site assessments, recommend suitable sanitation solutions, and ensure access to water and solar lighting. Through collaboration with these entities and utilization of existing resources and expertise, the project optimizes resource allocation and implementation efficiency, effectively addressing sanitation challenges in schools and contributing to improved health and hygiene standards within the community.

Impact:

The MHU project has significantly enhance the health and well-being of the community by providing essential healthcare services to a vast number of patients, estimated at over 1,20,000+outpatient department (OPD) visits annually. By catering to the healthcare needs of underserved populations and advocating for preventive health measures, the project plays a pivotal role in improving health outcomes and bridging healthcare disparities in the region. Furthermore, the project stands to positively impact the health and well-being of approximately 2,500+ individuals, including Anganwadi-going children, adolescent girls, and pregnant/lactating mothers. By directly benefiting these vulnerable groups, the project addresses malnutrition concerns and fosters overall improvements in health outcomes within the target communities.

Community doorstep health initiatives have a wide range of positive impacts, from improving access to healthcare and reducing disparities to empowering individuals and promoting community well-being. These programs play a crucial role in transforming healthcare delivery and fostering healthier, more equitable societies. Few broader level impacts were:

Improved Access to Healthcare: Community doorstep health programs break down barriers to access by bringing healthcare services directly to individuals in the

r communities. This is particularly beneficial for those who face challenges such as transportation barriers, lack of insurance, or limited mobility, ensuring that they receive timely and necessary medical attention.

Preventive Care and Early Intervention: By offering screenings, vaccinations, and health education at the doorstep, these programs empower individuals to take proactive steps towards maintaining their health. Early detection of health issues allows for timely intervention, preventing the progression of diseases and reducing the burden on healthcare systems.

Reduced Health Disparities: Community doorstep health initiatives often target underserved populations and marginalized communities, addressing disparities in healthcare access and outcomes. By providing equitable access to healthcare services, these programs help narrow the gap in health outcomes between different socioeconomic groups.

Enhanced Community Engagement: Engaging community members in the planning and delivery of healthcare services fosters a sense of ownership and empowerment. This not only inc.reases the effectiveness of interventions but also strengthens social cohesion and community resilience.

Cost Savings: By focusing on preventive care and early intervention, community doorstep health programs can lead to cost savings for both individuals and healthcare systems. Preventing the progression of diseases reduces the need for costly medical treatments and hospitalizations, resulting in overall healthcare cost reduction.

Health Education and Empowerment: These initiatives often incorporate health education components by address addressing the issue of open defecation and enhancing sanitation infrastructure in schools, equipping individuals with the knowledge and skills to make informed decisions about their health. By promoting health literacy and self-management, community doorstep health programs empower individuals to take control of their own well-being. Through initiatives aimed at the project contributes to creating a healthier and more conducive learning environment, thus positively impacting educational outcomes and overall well-being

Positive Health Outcomes: Ultimately, the goal of community doorstep health initiatives is to improve health outcomes at the individual and community levels. By addressing health needs comprehensively and holistically, these programs contribute to healthier, more resilient communities.

Sustainability:

Sustainability in the context of community doorstep health programs refers to the ability of these initiatives to maintain their effectiveness and impact over the long term, while also preserving the resources and environment in which they operate. Here's how sustainability can be addressed in the context of such programs:

Community Engagement and Ownership: Sustainable programs actively involve community members in decision-making processes, ensuring that interventions are culturally appropriate, relevant and responsive to community needs. By fostering ownership and empowerment among community members, programs are more likely to garner local support and participation, enhancing their sustainability.

Capacity Building: Building local capacity is essential for the sustainability of community doorstep health programs. This includes training community health workers, equipping them with the necessary skills and knowledge to deliver services effectively, and supporting their professional development over time.

Empowering local stakeholders to take on leadership roles and responsibilities strengthens the program's resilience and longevity.

Integration with Existing Systems: Sustainable programs integrate seamlessly with existing healthcare systems and structures, leveraging resources, infrastructure, and expertise already in place. By collaborating with local healthcare providers, government agencies, and other organizations, doorstep health programs can enhance efficiency, avoid duplication of efforts, and ensure continuity of care beyond the duration of specific projects.

Monitoring and Evaluation: Regular monitoring and evaluation are essential for assessing the effectiveness and sustainability of doorstep health programs. Monitoring key indicators, tracking outcomes, and collecting feedback from stakeholders allow program managers to identify areas for improvement, adapt interventions as needed, and demonstrate impact to funders and policymakers. Continuous learning and adaptation are critical for ensuring that programs remain responsive to evolving community needs and challenges.

By addressing these dimensions of sustainability, community doorstep health programs can enhance their long-term viability, effectiveness, and positive impact on the health and well-being of communities they serve.

Coherence:

The project's alignment with broader development objectives, encompassing education, health, and sustainable development. By specifically targeting government schools in rural communities and addressing identified sanitation needs through thorough assessments and consultations, the project

underscores its commitment to bolstering the well-being and opportunities of marginalized populations, thus contributing to holistic development efforts. Furthermore, the project's coherence with broader development objectives of promoting health, nutrition, and well-being, especially for women and children, is evident through its focused interventions at Anganwadi Centres (AWCs).

The MHU (Mobile Health Unit) project embodies a multifaceted approach that resonates strongly with the Sustainable Development Goals (SDGs), particularly SDG 3: Good Health and Well-being, and SDG 10: Reduced Inequalities.

In alignment with SDG 3, the project focuses on improving healthcare access and outcomes, especially for marginalized communities in remote villages. By delivering comprehensive healthcare services and advocating for preventive measures, the project aims to ensure universal health coverage and reduce healthcare disparities, thus contributing to the goal of ensuring healthy lives and promoting well-being for all at all ages.

Furthermore, the project's emphasis on reaching marginalized populations and facilitating their linkage to government programs underscores its commitment to reducing inequalities (SDG 10). By targeting government schools, addressing sanitation needs, and leveraging successful initiatives at Anganwadi Centres, the project contributes to SDG 4: Quality Education, SDG 6: Clean Water and Sanitation, and SDG 5: Gender Equality, among others.

By addressing the specific healthcare needs of remote villages and marginalized communities, the project aims to promote inclusivity and ensure that no one is left behind in the journey towards improved health outcomes. Moreover, the project's integration with broader development objectives, including education, health, and sustainable development, aligns with the interconnected nature of the SDGs. This holistic approach recognizes the interdependence of various development goals and emphasizes the importance of addressing multiple dimensions of well-being to achieve sustainable development goals 2030.

Promoting Quality Education

India has ambitious targets made by the Government of India in promoting Quality Education; however, rural India continues to see wide chasms and disparities in the quality of education delivered to students, as evidence by student learning outcomes. Pratham's nation-wide 2022 ASER survey provide a rather dismal picture of students reading and arithmetic levels – reporting that student Foundational Literacy & Numeracy levels had dropped to pre-2012 and 2018 levels. For instance, the percentage of children in Std III in government or private schools who can read at a Std II level dropped from 27.3% in 2018 to 20.5% in 2022. Similarly, the all-India figures for children in Std III with the ability to subtract had dropped from 28.2% in 2018 to 25.9% in 2022¹⁹.

The poor learning outcomes are compounded with rising proportion of children in Std I-VIII taking paid private tuition classes increased from 26.4% in 2018 to 30.5% in 2022 to access higher education opportunities. Multiple government and private partners, along with rural stakeholders are coming together to collectively uplift the state of education by supporting the enhancement of teaching quality, infrastructure, teacher and student attendance, high student dropout rates to collectively promote quality education.

Cipla in partnership with implementing agencies has made efforts to address challenges associated with promoting quality education. It recognizes, that beyond issues of securing Foundational Numeracy and Literacy, development of socio-emotional competencies such as critical thinking skills, curiosity, and emotional regulation are also important for students' successful academic performance²⁰. Alongside, Cipla also recognizes the importance of creating enabling conditions such as providing footwear and masks to students to access educational opportunities and attend school regularly.

The Foundation has launched several initiatives, including remedial ed-tech educational programs for girls to strengthen foundational literacy, strengthening early child-hood education in government Aanganwadis, and supporting science education & competency development among students through practical lab-based education, among other initiatives. Cipla's initiatives are spread across Madhya Pradesh, Maharashtra, Uttar Pradesh, Goa and Sikkim. The table below lists the many program activities undertaken by Cipla in collaboration with various program implementing agencies.



¹⁹ Cover Page 2022.cdr (asercentre.org)

²⁰ https://www.unicef.org/india/what-we-do/quality-education

S.no	Implementation Partner	Key Project	Key Activities
1	Agastya International Foundation	Mobile Science Lab (MSL) in Pune, Raigad, Indore, Goa & Sikkim	The project activities included: • Funding movement of MSL to remote schools in project geographies • Capacity building sessions for teachers • Student led community science fairs.
2	K.C. Mahindra Education Trust	Project Nanhi Kali at Barabanki, Mumbai, Pune, and Ratlam	 The project activities included the following activities: Setting up a ed-tech equipped academic support center powered by proprietory Al-Learning PAL software – Mindsparks. Training of community Associates to teach at ASCs Toofan games to promote extracurricular activities Provision of student supply kits including raincoats, menstrual kits etc.
3	Quest Alliance	Palavee Project - Strengthening Early Childhood Education in Government Anganwadi's in Khalapur Taluka	 Project included following activities: Capacity mobilization of AWWs for ECE Provision of facilities/kits to aid ECE in 21 model AWC
5	Adhyayan Quality Education Foundation	Goa Students on the Path of Career Awareness	 The project included the following activities: Career Awareness sessions held for students on locally available careers Teacher training sessions Development of videos for career awareness
6	Cipla Foundation	Setup of Mini Science Centres (STEM Labs) in 2 Schools surrounding Patalganga	The project involved set up of mini-science centers in 2 schools
7	Greensole	Donation Drive	Key project activities included support provided towards recycling 2,000 foot pair and 1,000 face masks, distributed to children from 20 schools located in Mumbai slums and rural Maharashtra.

Cipla's initiatives to promote quality education have touched the lives of 11000+ students and has conducted 75,000+ practical science exposures to inculcate student understanding of science.

Theory of change

Setting up ICT enabled Academic Support Centers (Promoting Quality Education)





Mobile Science Lab initiatives (Promoting Quality Education)

Footwear recycling for school distribution in Maharashtra



Relevance

As outlined above, India has made strategic strides in improving the quality of education for rural students; however, rural India continues to face problems associated with infrastructural deficits – including lack of digital facilities & labs, inadequate teacher-pupil ratio's, and lack of capacity mobilization – all, of which together impact the quality of education in rural students.

The Global Sustainable Development Goals embed and intertwine digital literacy with the achievement of Quality Education. For instance, as part of SDG 4 which focuses on providing quality education for all, SDG 4.4.2 is a crucial Digital Literacy Skills Indicator, highlighting the importance of youth in achieving digital literacy skills. Technology contributes to a multi-modal pedagogical experience with few constraints of time and space – allowing it to help deepen student learning experiences through multi-sensory stimulation. Especially in the context of developing countries, where the quality of school education suffers due to quality of teaching staff, and remedial support is unaffordable for low-income families – digital technologies are an important bridge to improve learning outcomes (OECD, 2015, p. 4).

Foundational Literacy and Numeracy (FLN) Skills are an important foundation to build student knowledge and skills. Literature has uncovered a symbiotic relationship between digital skills and FLN skills, where both have the potential to reinforce each other. Students' abilities to navigate through a digital world are built on a foundation of strong literacy and logical skills. – acquired in a non-digital environment. Yet at the same time, exposing children to online navigation also helped student improve their reading skills. Together, strengthening FLN skills through a digital medium can lay the foundation for stronger student success stories. Despite its many advantages, the digital divide in India – particularly, focusing on elearning continues to be grave. The Unified District Information System for Education (UDISE+) reports that only 14% Indian government schools and 21% government aided schools have functional ICT Labs.

Within this context, Cipla's initiatives to support setting up of tech-enabled Academic Support Centers in project locations is highly relevant. Particularly tailored to feed the need of female pupils, the intervention by providing digital remedial support to students, collectively solves the problem of digital divides & inadequate FLN skills, while catering to vulnerable populations in the ecosystem. Through this, the program hopes to improve student learning outcomes for girls, and ensure they complete their schooling with dignity. Ancillary initiatives such as extra-curricular sports and games seek to promote and achieve holistic development of pupils. On the other hand, students are also supplied with kits covering essentials such as raincoats, sanitary napkins etc. to further student goals of completing their education with dignity.

Apart from FLN, another crucial building block of student learning outcomes is their scientific temperament characterized by scientific knowledge, curiosity, and critical thinking skills. In India, science education is characterized by rote-learning and lack of practical engagement. Integrated Science-labs as foundational learning tools, and important bridges between theoretical knowledge and practical application are virtually non-existent in nearly half the Indian schools. UDISE+ Reports that only 53.6% schools in India have an integrated science lab. Particularly, in Madhya Pradesh and Maharashtra where Cipla supported Mobile Science Lab Programs are running, a vacuum exists in science education pedagogy, with 43% and 24% schools lacking integrated science labs.²¹ Shortage of teachers, lack of infrastructural facilities, and adequate funds are potential barriers towards the establishment of science labs. In keeping with the challenges of the educational landscape in government schools, Cipla has supported the setting up of science labs in schools. Particularly interesting are the Mobile Science Lab programs, which are proving to be contextually relevant to deliver practical and hands-on training to students through a mobile science-lab delivery model, as they account for teacher and infrastructural shortages to ensure that practical and hands-on science education is delivered to school-children keeping in mind contextual limitations. Teacher training sessions supported by Cipla have also invited positive feedback from teachers in their ability to equip teachers with experimental pedagogical techniques.

²¹ <u>Microsoft Word - UDISE+ Report 2021-22 10.10.2022 (education.gov.in)</u>

Effectiveness & Impact

Program impacts stand as testimony to the effectiveness of project models across Cipla supported science education, early child-hood education, and remedial education programs. Thus, the two have been synthesized and presented below.

1. Improved support system for students: Cipla supported education programs work through multipronged ways to strengthen the student support system. So far, 11,000 + students have been impacted through Cipla's initiatives to promote quality education.

The Community Associate – recruited from the local community, acts as a confidant and source of encouragement of students to work hard. She acts as a pivotal figure engaging with both students, as well as the school administration, and most importantly parents – encouraging them through visits, and interactions with parents to support their child in their educational journeys. Similarly, Cipla's early child-hood education program, by building capacity of Aanganwadis with a step-by-step approach, seek to strengthen student support system for their long-term development. Thus, together, these supporting levers are strengthened to make educational journeys easier for students, increase engagement, and prevent student drop-outs where possible.

- 2. Creating enabling conditions to access education opportunities: Providing 2,000 upcycled footwear and 1,000 masks to children in need has prevented the incidence of foot-related illnesses such as infections, injuries, and parasitic diseases. As a result, children are prospectively able to attend school regularly without the hindrance of foot-related ailments, promoting their educational attainment and future prospects for decent work opportunities. The provision of mats also enabled the creation of dignified learning spaces for children.
- 3. Improved Academic Performance: Cipla supported remedial education and mobile science lab programs have lent themselves to improving academic performance in the respective subjects taught by them. The focus on foundational literacy and numeracy through language, math, and English have worked in tandem with school curriculum and improved student learning outcomes.

Pan India, 75,050+ science exposures have been made to students. Conceptual clarity has been bought about by science experiments, with the use of experimental pedagogic techniques, and an interactive learning pedagogy that encourages students to ask questions. This has reportedly sparked student curiosity in science. The increased student engagement has also resulted in a perceived improvement in science scores. Teachers from Cipla supported MSL programs have reported that there had been a nearly 30% average jump in science scores. Research has also shown, that interventions associated with strengthening early child-hood education programs in Aanganwadi centers, such as those supported by Cipla, have reported higher development and intelligence quotient amongst children in treatment centres, as compared to control Aanganwadis. These lay a vital foundation for student academic performance in the long-run.

- 4. Enhanced student confidence levels: Student confidence levels can be built in multifarious ways, by filling several ecosystem gaps. Cipla supported MSL Programs hold several science-fairs, and select young instructors to impart science education by building science models. Together, platforms for students to express themselves practically, with science education apparatus that students have built themselves, have reportedly boosted student confidence in building science models and expressing themselves on public platforms. Similarly, through exposure to digital learning tools among students, digital self-efficacy of girl students is also likely to go up.
- 5. Enhanced awareness of different pedagogical techniques: Students and teachers from Cipla supported MSL schools reported that students had become aware of different pedagogic techniques, or ways to teach the same complex science topics through exposure to MSL sessions. Students would import these techniques into the classroom, encouraging their teachers to use

similar pedagogies to explain complex topics. Thus, the classroom experience for students was not just defined by teachers, but students were also transformed into participatory actors, defining class-room **Enhanced teaching pedagogy in classrooms**: Innovative teaching pedagogy employed in Cipla supported science programs have improved student exposure to different learning pathways. Ed-tech backed remedial education programs adopt Personalized Adaptive Learning software – Mindsparks, to generate e-personal learning pathways for children. Cipla supported capacity building programs as part of its MSL initiatives, as well as student and teacher exposure to practical experimental science-pedagogy are transforming how concepts are taught. As mentioned earlier, students also assume the role of transformational agents in class-rooms, influencing the use of new teaching methodologies. Program partners, and teachers also reported, that inspired by the utility of practical and hands-on science experimentation in teaching scientific concepts, several teachers have started establishing making their own teaching-learning materials to teach students. ECE in Aanganwadis also equip AWWs to strengthen teaching pedagogy in class-rooms.

As the nation went into lock-down during COVID, economic activity and social-welfare services by private and public players suffered implementation set-backs. However, despite these setbacks, implementation partners were quick to adapt, and continue provision of education – which aided in filling learning gaps for students. For instance, students were called to public community centres, following adequate safety protocols, during shutdown of schools to deliver learning content. Thus, in the absence of school-education – these schools provided students adequate learning spaces to prevent major learning gaps for students. Parents were also reported to be supportive of the initiative, as it ensured that children received uninterrupted education. On the other hand, the Cipla supported MSL Program adapted its content and delivery mechanism to suit a virtual environment and become relevant to the COVID Context. Simple Do-It-Yourself (DIY) experiments were included in the syllabus, to ensure they could be carried out with ease at home. Exclusive content was simplified and developed to suit an elearning environment, and classes were carried out via-google-meets according to timings that suited student's parents. However, it was reported that despite these efforts, student attendance rates in virtual meet set-ups were not as stable due to issues of device accessibility, and network connections.

However, there is scope to improve the implementation of programs all the same. As part of the Cipla supported remedial education program, partners reported that several Community Associates were recruited from the local community and were taught digital skills, along-side being trained in the curriculum. Being non-native to digital skills, or English language skills – several Community Associates (CAs) continued to struggle in operating tabs and delivering quality language education. There is scope to improve the quality of trainings by increasing their frequency, while also incorporating training assessments to assess CA readiness to handle technology, and teaching content. The possibility of exploring the ratio of tablets for students can also be explored to support teaching effectiveness. Furthermore, supplementary operation and maintenance support can be provided to ensure that CAs are sufficiently supported with technology in the classroom.

Teachers who belonged to MSL schools recommended that the program's effectiveness and impact on students could improve by increasing the frequency of visits of the van to schools. In a single visit, the lab-facilitator would have to cater to students across multiple grades, thus diluting their attention and focus. Specific attention and time given to students of each grade would increase the delivery effectiveness. Furthermore, teachers also observed that once students made DIY science models after putting in sufficient hardwork, they would generally go to waste. Teachers recommended equipping schools with necessary infrastructure to store some of these science models. These would not only boost student morale, but also help harness some of these models as teaching-learning materials for the longer term and future generation of students.

Coherence

Globally, the Sustainable Development Goal (SDG) 4 makes a push for inclusive and equitable quality education, and life-long learning opportunities for all children. The foundations for Early Childhood

development find themselves in the expressions of SDG4, and India's NEP. The Integrated Child Development scheme that proactively takes steps to set up Anganwadi Centers to strengthen and provide early childhood education to children – recognizing the importance of strengthening foundations for adult development. By strengthening AW ECE programs, Cipla is contributing to the foundational apparatus essential for life-long learning of at-risk young and marginalized children.

Cipla supported science-based education programs are working in allignment with the Samagra Shiksha Abhiyan, which recognizes the importance of providing holistic education opportunities for children by setting up integrated science labs, smart-classrooms, play-based learning among others. The National Education Policy (NEP) also lays a special emphasis on science pedagogy, encouraging the use of integrated science labs to create supportive learning environments for children. In the absence of necessary infrastructure in schools, MSL and science-based programs thus fill a foundational gap in the rural education ecosystem, by making science labs available to students. Additionally, the NEP also interestingly emphasizes the use of science exhibitions and fairs to build a sense of community and end the isolation of students, teachers, and schools. The foundation also makes efforts to set up exhibitions and fairs, through its selection of young instructors. Therefore – science education becomes a medium to bridge students, and surrounding communities; while also acting as an important platform for students to express themselves and build their self-confidence.

Cipla supported remedial education programs apart from working towards the provision of quality education for all children; also works in coherence with Sustainable Development Goal 5, geared towards achieving gender equality and empowering all women and girls. Provision of livelihood opportunities to community associates in their local vicinity is also contributing to SDG 1 - No Poverty. Several national level government schemes also work towards supporting girls in accessing educational opportunities such as 'Beti Bachao, Beti Padhao', Sukanya Samridhi Yojana – a savings scheme program for parents of girl children; along with 'Ladli Laxmi Yojana', which provides cash transfers to girls in schools. By providing remedial education support to girl children, the program works in coherence with other national and state level initiatives to support the education of girl children, while also enhancing the quality of education, and reducing their drop-out rates. The Community engagement component of the remedial education initiatives, in alignment with awareness building sessions, works towards parent behaviour change through parent-teacher meetings and visits to parent-homes. Furthermore, provision of sanitation kits improves access to adequate sanitation and hygiene equipment - thus, also contributing to SDG 6 (Clean Water & Sanitation). Remedial learning programs with the help of digital labs for female students helps put forward the goals of the NEP 2020, that actively calls for investments in digital infrastructure, online teaching platforms and tools, virtual labs, online assessments, and promoting multi-lingual approaches to teaching and learning in Indian schools. By bridging the digital divide, these programs are also contributing to the SDG 10 - Reduced inequalities.

Sustainability

The sustainability of program impacts needs to be looked at across multiple stakeholders for initiatives that seek to promote quality education. Cipla supported Foundational Literacy & Numeracy-remedial education and science programs have improved student engagement and academic performance with their respective subjects. This engagement thus lays a foundational base of knowledge to further build their knowledge on. For instance, the use of e-learning PAL software has improved student engagement and academic performance with subjects they earlier found tough. Similarly, the unique teaching-learning pedagogy employed by MSL has ignited a deep interest in science among students, that is likely to last beyond the program period – thus making the program's impacts highly sustainable. Students remarked that prior to MSL, they would rate their interest in science as 2/5; however, after it – their rating had increased to a 5/5. Consequently, several students reported that they would like to take up science as their chosen subjects when they graduate to higher classes. The same trend was also reported by program partners.

However, the sustainability of the impacts of the intervention are likely to not just impact students and their immediate lives, but also teachers, Anganwadi workers and consequently learning ecosystems in

the long run. Through exposure to diverse teaching pedagogies, teachers and AWWs have been able to incorporate best practices, and DIY teaching-learning materials in their own classrooms, thus transforming the quality of education delivery. Engagement of CAs with parents have been crucial in informing them about the multiple ways they can engage with the student's educational journeys and build a supportive ecosystem for their children. Promoting inclusive learning environments through capacity building and deploying fellows are likely to create behavioural shifts in school-ecosystems, enabling inclusion of children with different learning styles in the classroom.

However, to further the sustainability of programmatic impacts, the possibility of engaging schools and communities and making them important stakeholders in programs and using participatory monitoring approaches to exercises can in the long run empower and enable schools and communities to take ownership of infrastructure and human resource support, as well as enable their deeper involvement in the program, to strengthen program implementation and its sustainability in respective schools.

Strengthening School Infrastructure

Infrastructure informs effective educational outcomes for children, as it anchors the very conditions – such as safe and well-lit classrooms - that support children in their learning processes. This association is clearly enshrined in the Sustainable Development Goals, which call for the countries of the world to build and upgrade education facilities that are child, disability and gender sensitive, and provide safe, non-violent, inclusive, and effective learning environments for all. Infrastructural development is crucial to achieving the quality education for all as enshrined by Sustainable Development Goal 4.

Classrooms, ICT Labs, Science Labs, adequate water, and sanitation facilities together ensure that students are able to comfortably attend school, without infrastructural barriers in educational access. Sex-segregated functional toilets have been shown to positively impact attendance of girls in schools, while presence of ICT labs encourage student engagement in schools, and also have the potential to improve learning outcomes by engaging diverse teaching pedagogy. Funding support to school activities ensure that school's function smoothly from transportation infrastructure, to food, and adequate equipped classrooms. Together, these anchors help deliver quality education services to the students they serve. Towards this end, Cipla has supported several initiatives to strengthen key facets of educational infrastructure in rural schools – including the construction of all-weather classrooms, multipurpose sheds, installation of sanitation blocks, providing education & health support to UKG students, and equipping schools with smart-classrooms. These initiatives have been implemented across Karnataka, Maharashtra, and Sikkim. The table below summarizes some of these educational infrastructure projects supported by Cipla to improve educational outcomes.



S.No.	Implementation Partner	Project Title	Project Activity
1	Cipla Foundation	Installation of Sanitation Blocks for boys & girls at Saraswati Vidyalaya Ravangaon, Pune & Lonad Chaudharypada Panchkroshi High School, Bhiwandi, Thane	 Key Project Activities include: Installation of separate sanitation blocks for boys and girls Installation of solar lighting system.

2	Cipla Foundation	Smart Classroom Project in Schools in Jalna District of Maharashtra	 Key Project activities included: Installation of white-board, projector, sound-system, desktop and education software Training to teachers Provision of online support
3	Parikrama Humanity Foundation	Parikrama Humanity Foundation - Adoption of two classrooms of UKG of 2 Parikrama Schools located in Nandini Layout and Koramangala.	 Project activities include: Providing funding support for student education, meals, and health checkups. Family and welfare support provided in the form of livelihoods training and medical aid support.
4	Cipla Foundation	Construction of 8 rooms block in Govt Sr Sec School Mamring	Key Project activities include:Construction of 8 rooms block
5	Cipla Foundation	Construction of multi-purpose shed at Gov High school Dugalakha	 Key Project activities include: Construction of multi-purpose shed at government junior high school.

Initiatives to strengthen school infrastructure have impacted 11,700+ students and equipped 11 schools with superior infrastructure facilities.

Theory of change

Funding holistic school education (Strengthening School Infrastructure)

INPUTS/ACTIVITY	OUTPUTS	OUTCOME Student academic outcomes	IMPACT	
Funding deployed for PHF UKG Classrooms Enrolling UKG students on financial needs		Students are provided uninterrupted access to quality education upto Grade 10	Students successfully on the path to graduate at school level, with sufficient academic and holistic development	
basis and adequate due-diligence UKG students from low-income families are	UKG students achieve	Students are able to socialized behaviourally in school-setting	Enhanced student self-efficacy among	
provided access to quality-education	grade level and holistic academic proficiency	Students are able to acquire English-language learning skills	students from marginalized backgrounds	
Health & Nutrition: Provision of Breakfast, Lunch, and evening snacks to meet children nutrition requirements		Emotional wellness		
Mental Health Care through one-on-one counselling support provided to children suffering from Mental Health Issues	Enhanced Psycho- social/health and well-	Enhanced Psycho- social/health and well- being of students Enhanced ability of students to cope comfortably with social, curricular, extra-curricular activities	 Students are able to comfortably complete education without health (physical & mental) set-backs. 	
Annual Health check ups for children	being of students		Reduced financial and emotional	
		Financial wellness	burden of children educational/well- being needs	
Provision of Livelihoods Training to women	Women undertake livelihood generation	Increase in financial income of women	Enhanced self-efficacy among women	
children		Community members inspired to take up additional livelihood	Enhanced pscyho-social family well- being	
		generation activities	+	
Parent wellness workshops - de-addiction, counselling, etc.			Enhanced well-being of students and families	

Infrastructure Development Projects - (Sanitation & ICT Infrastructure)



The following sections describe program findings based on an impact assessment exercise conducted with the respective project partners.

Relevance

ASER 2023 reports that 25% school-going children in the 14-18 age group, in rural India, still cannot read a Std II level text fluently in their regional language. More than half of these, struggle with division (3-digit by 1-digit) problems. A little over half students can read sentences in English (57.3%), while only three quarters among them can tell their meanings (73.5%)²². The poor quality of education in rural India is evidenced by the poor foundational literacy and numeracy skills among its youth. High teacher absenteeism, low teacher-capacity, high student drop-out rates, and among these are compounded by poor infrastructural facilities in schools, only aggravating the problem.

Lack of adequate classrooms and multi-purpose spaces create logistical challenges, that impact student comfort, quality of teaching delivery, and therefore the quality of education. Research has shown a clear positive relationship between school infrastructure and positive educational outcomes for students – having direct positive impacts on their attendance and wellness²³. Adequate well-lit and ventilated classroom facilities, and sanitation facilities as developed by Cipla are clearly important factors contributing to positive educational outcomes.

The absence of proper sanitation facilities in schools, especially for girls has been closely tied to higher transmission of communicable diseases, drop-out rates, poor attendance, and lack of perceptions of safety for girls in schools. Studies have shown, that especially for pubescent and menstruating girls, lack of adequate gender-specific toilets was a barrier to them attending schools and promoted absenteeism. Achievement of UDISE+ 21-2224 reports 97% schools have separate toilets for girls; however, toilets also had to be useable and well-maintained. In this context, provision of clean and well-ventilated sanitation blocks for girls and boys in schools constitute an important and relevant initiative to promote student attendance in schools, particularly amongst females.

Effectiveness and Impact

Cipla's work in infrastructural development, is collectively creating the following impacts for students. These impacts stand as testimony to the effectiveness of project models – and, have thus been synthesized as presented below:

Enhanced access to quality education for students: Cipla's funding of UKG students allows children to enter the PHF ecosystem, providing for uninterrupted quality education for students. Teachers from PHF schools reported close to no drop-outs, and that students were able to learn as per grade level. The provision of additional classroom blocks in schools also allows effective delivery of teaching content by providing for comfortable infrastructure and controlling surrounding acoustics.

Enhanced student engagement & attendance in schools: Studies suggest that there are strong positive correlations between the provision of adequate classroom, sanitation facilities in schools and students' attendance levels. Interestingly, the presence of a sanitation facility in schools has also been linked to higher female student enrolment in schools²⁶. Studies also suggest the provision and use of ICT labs in schools promotes students' engagement²⁷ in the classroom. Increased engagement can result in higher student motivation and attendance levels.

²² Microsoft Word - ASER 2023 press release English 16 Jan (asercentre.org)

²³ World Bank Document

²⁴ Microsoft Word - UDISE+ Report 2021-22 10.10.2022 (education.gov.in)

²⁵ https://www.downtoearth.org.in/news/waste/building-toilets-in-rural-schools-is-not-enough-they-have-to-be-usable-too-63017

²⁶ The association between presence of sanitation facilities and school enrolment in Pakistan - ScienceDirect

²⁷ Influence of computers in students' academic achievement - ScienceDirect

Enhanced financial independence of women: Cipla's provision of livelihoods trainings for women has positively increased women and their incomes. The enhanced livelihood skills and abilities have in turn led to a rise in their personal incomes, as reported by women – who reportedly earned up to INR 3000 per stitched product. Enhanced financial independence of women have positive impacts on their abilities to provide for their children and families, as well as on their decision-making skills, self-confidence levels, and mental health.

Sustainability

By virtue of the nature of construction carried out by Cipla – the pucca nature of classrooms blocks, and sanitation blocks are likely to sustain and have long term impacts on student learning quality, engagement, and academic performance across generations of students. Classrooms and sanitation blocks when cleaned, well-lit, ventilated, and maintained are likely to engage positive student outcomes for students and the school. However, ensuring sustainability of projects will need to consider the operation, ownership, and maintenance of project facilities – especially on neglected facilities such as sanitation facilities.

Sanitation blocks will need to be cleaned regularly, with adequate plumbing and electrical support provided to students where needed. Scope of providing sanitation facilities through regular refilling of hand-washing material, provision of sanitary napkins, anti-bacterial disinfectant, and safe and hygienic equipment for disposal of sanitary wastes will also need to be incorporated to make proper sanitary habits a culture. Furthermore, provision of sanitation blocks can be complimented with WASH curriculum to ensure that infrastructural provisions are also deploying behaviour change initiatives where necessary.

The provision of ICT labs is provided alongside training and operation support, thus paving the way for long-term adoption of technology. As mentioned earlier, studies have shown that adoption of technology can have sustainable and long-term impacts on student learning outcomes by engaging diverse teaching pedagogy, a-synchronous learning, and accommodating learning needs of diverse learners²⁸. However, for the same – technology adoption in school curriculum, supporting electric infrastructure, adequate cyber-security, and strong digital literacy skills will need to be ensured to enhance effective usage of ICT Labs in schools.

In addition to core infrastructural support provided by Cipla, Foundational learning support provided to students and families through PHF schools are especially sustainable; as they build the foundation for long term student learning and supporting ecosystem by developing financial independence and providing health support to families. A student within the PHF ecosystem continues their education until they are ready to graduate to college, ensuring students have access to uninterrupted education. During COVID-19, the provision of smart-phones to students by Cipla ensured that students were able to cope with school curriculum during Pandemic times and prevented learning gaps. Furthermore, health and nutrition support provided to families collectively ensured that students did not drop out due to health-conditions that did not favour their learning. Most importantly, by equipping students parents with livelihood training in trades such as stitching, Ari work, and Beauty therapists – mothers, particularly, are on their way to become financially independent and provide long term support for their children. Several mothers reported that they had started their own business – stitching sarees, and blouses, and made upto INR 3000 per piece. Parikrama has also instrumentalized SHGs among mothers, that several women are now a part of, and use to pursue informal loans to meet needs.

Coherence

There is a strong policy alignment of the infrastructural development initiatives with global and national policies. Sustainable Development Goal 4 provides the policy impetus to provide quality education for

²⁸ The potential of technology-supported learning | Innovating Education and Educating for Innovation : The Power of Digital Technologies and Skills | OECD iLibrary (oecd-ilibrary.org)

all and is intertwined with ensuring the infrastructural support towards forwarding the goals are met. Cipla's initiatives to set up boundary walls and separate class-room blocks are in alignment with a whole range of educational policies including the National Education Policy (NEP), and the Right to Education Act has emphasized important classroom infrastructure elements – such as all-weather classrooms for teaching and learning, as well as boundary walls for fencing and securing school premises.

SDG 4, along with the NEP recognize the importance of early child-hood education for children. The relationship between early childhood education, and its complex interlinkages with health and wellness ecosystem of parents finds its expression in the Integrated Child Development Scheme run in the government Anganwadi Centres. Drawing on these foundational pillars, the Parikrama model of education funded by Cipla also takes care of student health & nutrition, family welfare and livelihoods training, while taking care of children's early childhood education needs in an uninterrupted manner. The Parikrama model through its holistic approach – including livelihood enhancement support, and health & nutrition support is aligned with the SDG 1 – 'No Poverty', SDG 2 – 'Zero Hunger', and SDG 10 – 'Reduced Inequalities', by bridging access to quality education among low-income families.

Cipla's establishment of sex-disaggregated sanitation blocks in schools exists within the scope global and national efforts to improve sanitation facilities in schools, especially for girls. It is aligned with SDG 6, that recognizes the importance of providing clean water & sanitation facilities to all. The Right of Children to Free and Compulsory Education (RTE) Act of 2009, also demands that schools provide separatee toilets for girls and boys in every school building. The Swachh Bharat, Swachh Vidyalaya initiative is another government campaign which aims to provide for the building of toilets for girls in schools. International INGOs such as UNICEF India have also been active partners in the initiative, to improve sanitation and wash facilities in the country. Concerted efforts have led to drastic improvements in the sanitation facilities for students. For instance – UDISE+ reports that at an all-India level, 97²⁹% schools have access to separate toilet facilities for girls. However, literature has increasingly pointed to the need to move beyond infrastructure set up and provide adequate maintenance support to these toilet blocks. The replacement of sex-disaggregated toilet facilities with cleaner and well-built facilities by Cipla echoes this trend.

Cipla's initiatives to set up ICT labs are in resonance with global and national policies to encourage edtech interventions and digital literacy narratives. For instance, as part of SDG 4, Indicator 4.4.1 recognizes youth/adults with information and communication technology skills as essential for them to find employment, decent jobs, and entrepreneurship. Playing an instrumental role in bridging the digital divide, ICT initiatives are also aligned to SDG 10 that seeks to reduce inequalities. Furthermore, the National Education Policy 2020 calls for investments in digital infrastructure, online teaching platforms and tools, virtual labs, online assessments, and promoting multi-lingual approaches to teaching and learning. The Samagra Shikha scheme by the Government of India, also seeks to provide quality education to students from class 1 – 12 and recognizes the importance of providing ICT Labs and Smart Classrooms in delivering the same.

²⁹ <u>Microsoft Word - UDISE+ Report 2021-22 10.10.2022 (education.gov.in)</u>

E-Learning

World-wide, there has been a clarion call to integrate e-learning technologies into mainstream education. The benefits of information communication technology on education have been recognized to expand student access to knowledge and deepening their learning experience. Technology contributes to a multi-modal pedagogical experience allowing it to help deepen student learning experiences through multi-sensory stimulation (OECD, 2015, p. 4). However, the importance of integrating digital literacy and ICT facilities in schools was reinforced when the Global COVID'19 pandemic hit home.

As educational institutions worldwide shifted towards remote learning modalities during the pandemic, approximately 80% of school-age children in India found themselves disconnected from the education system due to either absence or inadequate access to remote learning technologies. An Oxfam report highlights that 7 out of 10 Indians continue to grapple with limited or no connectivity to digital services, further exacerbating the rural-urban education divide Among the poorest 20% of households, access to computers stands at a mere 2.7%, and internet facilities at 8.9% (Oxfam, 2022). Additionally, UDISE+ reports indicate that only 35% of government schools (upper primary to higher secondary) in Gujarat are equipped with ICT labs. The push towards integrating technology into education systems stems from a pressing realization that leveraging technology is essential to enhancing the systemic resilience of education systems.

Cipla is supporting various implementation partners – who have begun to work towards the goals of building e-learning systems in educational ecosystems prior to the Pandemic. These included setting up of e-learning programs with personalized learning pathways through lean applications such as WhatsApp, provision of tabs to students and schools, or setting up smart-classrooms across Sikkim, Himachal Pradesh, Goa, Maharashtra, Madhya Pradesh, and Karnataka. As a result, several e-learning initiatives launched by Cipla in 21-22, were able to bridge learning gaps, which may have otherwise severely impacted student's learning levels. Moreover, several e-learning initiatives are sure to build student and school ecosystem digital resilience, in the likelihood of future events that may require such transitions. Given below is a table, listing the various projects supported by Cipla to build e-learning infrastructure and mobilizing digital capacities in schools.



#	Implementation Partner	Project Title	Key Project Activities
1	17000 ft Foundation	Infrastructure development and digitization of Remote schools in Sikkim	 Key project activities include: Setting up Digital labs in schools with the help of Community Mobilization Teacher capacity building sessions on usage of computer labs and digital content Setting up play-grounds in schools for children to play in
2	Cipla Foundation	Infrastructure development and digitization of schools in Sikkim	 Key project activities include: Setting up Tablabs Provision of furniture (desks, benches, chairs etc.) Flooring provision
3	Convegenius	Whatsapp Based Learning Program in Solan, H.P	 The program included following activities: Connecting students to Whatsapp accounts for accessing e-learning content Mobilizing schools and parents for adoption of Whatsapp as an e-learning platform Regular monitoring of content usage through MIS, and providing teachers insights into student learning needs.
4	Convegenius	Digital Learning and Excellence and Development Programs in Himachal Pradesh & Sikkim	 Program activities included: Provision of tabs to schools Installation of CG platform on tabs Capacity building & mobilization of teachers & students Dashboard maintenance for stakeholders
	Convegenius	D-Lead: Digital Literacy- Personalized learning program for better educational outcomes in educational institutions in Goa	 Program activities included: Provision of tabs to schools Installation of CG platform on tabs Capacity building & mobilization of teachers & students Dashboard maintenance for stakeholders
	Convegenius	D-Lead installation in 3 schools in Solan, Himachal Pradesh	 Key project activities included: Procurement & set up of tablabs in schools Capacity building & mobilization of teachers & students Program management support
5	I-dream Foundation	Project D-Lead – Support to Students for Individual Learning Tabs with Accessories and iDream Educational Learning Contents to SSC Students of schools located in Daund Taluka, Patalganga, Pithampur, Virognagar & Bommasandra.	 Key Project activities included: Procurement and distribution of tabs to respective schools Teacher training sessions Provision of telephonic support and provision

The following sections describe program findings based on an impact assessment exercise conducted with the respective project activities.

Theory of change

E-Learning OUTCOME IMPACT INPUTS/ACTIVITY OUTPUTS Student level impacts Student level outcomes School Program enrollment Increase in student attendance in Increase in intrinsic student based on needs assessment. elementary schools engagement, interest and Establishing functional & school intrinsic-motivation. motivation towards learning Reduction in student drop-out sustainable digital labs in local and distance criteria amongst students with diverse schools with PAL Software rates in elementary schools learning styles. Meetings with School SMC for Increased digital self-efficacy Integration of digital labs in project uptake and Student learning levels in English, among students school time-table or school sensitization Math, Science etc. across classes are curriculum Improvement in student improved/ at par with grade level confidence, self-efficacy levels Improvement in student digital Mobilization of local Creating inclusive environments in literacy skills. governments, parents, schools Comfortable adoption of digital schools, and village youth for Increase in intrinsic student PAL software in schoolprogram implementation Enhanced school ecosystem attachment & motivation levels to timetable and class-room by Additional O&M support teachers & school attend school Improved teacher professional provided through trainings to administration practice and confidence levels teachers, community Enhanced reputation of school in Improvement in digital literacy members, or back-end support local community skills and Technology Centralized Annual Teacher & acceptance among Teachers, Increase in student enrollment in Headmaster Training on Headmasters and Parents local schools Operation & Maintenance of digital apparatus, digital model Increased involvement of parents, communities in student-learning Increase in overall lifeprocesses/school-based activities for satisfaction/well-being of students enhanced educational support and local communities structure

Relevance

E-learning programs such as the ones supported by Cipla sought to build end to end technological infrastructure. These have been highly relevant for a semi-urban and rural audience, considering only 14% Indian government schools and 21% government aided schools have functional ICT Labs. Considering the vacuum in e-learning infrastructure, there is a large appetite and need for e-learning infrastructure to be built in schools.

This vacuum was also echoed in systematic needs assessment done Cipla to assess the need, appetite, and impetus towards ownership of technological infrastructure. The respective schools in which programs were launched catered to students from low-income families without technological access in schools, or at home. Curriculum for the e-learning programs was immediately drawn from the respective schoolboards and syllabus, thus making learning relevant for students. Teachers from project schools remarked, that most students in the school belonged to farmer families, therefore - the interface with e-learning tabs was among their first experience of using tablets, and students were extremely excited to engage with them.

Particularly in the COVID-19 Context, programs had adapted to fill learning gaps caused due to the closure of schools. Cipla supported programs, took advantage of the smart-phone penetration in the rural ecosystem, and used lean applications such as WhatsApp to deliver training content. Where infrastructure was not available, Cipla supported programs deployed home-based tabs, equipped with power-banks to ensure remedial learning for students to fill learning gaps caused due to school closure during COVID – 19.

Effectiveness

The Programmatic effectiveness of Cipla supported initiatives are evidenced by the strengthened Teaching-Learning outcomes prevalent in schools. Technological integration in student learning curriculum makes a wealth of resources accessible to students, beyond traditional textbook content. Possibilities of various pedagogic techniques open themselves up – including asynchronous learning, personalized and adaptive learning, instant formative and summative assessments, differentiated instruction to meet diverse learning needs, as well as the possibility of fostering collaboration and inclusivity³⁰ of students together work towards improving learning outcomes for children. As research has increasingly validated, Cipla supportedinitiatives have taken particular care to retain human-centered engagement by empowering teachers with digital pedagogy, using technology as a powerful catalyst to enhance educational outcomes.

A combination of technological integration and the multi-modal, asynchronous pedagogy employed in the e-modules helped improve learning outcomes for students.

An MIS based management of programs acted as an evidence base for several teachers to focus on topics that students did not perform as well in. Teachers reported that students with diverse learning styles and speeds, especially slow learners were also able to learn more easily due to the audio-visual techniques. E- modules also allowed students to revise concepts thoroughly. Especially for students in class 9-10 with qualifying exams, e-learning modules particularly acted as revision for students. Digital labbased learning also lent itself to asynchronous teaching, because of which, teachers were able to cover teaching curriculum more effectively and accommodate for teacher-shortages. Together, these yielded in enhanced learning outcomes for students.

Home-based learning and WhatsApp based learning programs especially had the unintended positive impact of benefiting student's families. Students and their siblings were able to share the tabs, or learning content and benefit from the same. Additionally, progr

m partners reported that due to the portability of learning content, some students were able to carry on learning-processes even while they helped their parents out with their respective occupations in afterschool hours.

³⁰ The potential of technology-supported learning | Innovating Education and Educating for Innovation : The Power of Digital Technologies and Skills | OECD iLibrary (oecd-ilibrary.org)

Impact

Program impacts were noticed at the school ecosystem and community levels:

Enhancing Digital Resilience of Schools and Communities: School ecosystems have grown digitally stronger through the installation of digital labs or facilitating education through digital platforms as in the case of WhatsApp based learning programs. Trainings conducted by partner organizations, as well as the integration of digital pedagogy in the classroom have aided improvement of digital skills among teachers and headmasters. Studies have shown similar interventions improving the digital self-efficacy, as well as openness to using digital tools in educational pedagogy among schoolteachers and headmasters³¹. By investing in digital skills and experiences, and involving important stakeholders – such as students, and their parents; schools grow digitally resilient.

Developing outcome-based thinking at school level: Program partners reported that the heavy use of MIS systems and frequent monitoring of student progress via school headmasters and teachers has, according to program partners, driven an 'evidence-based', outcomes thinking approach amongst school administration and headmasters in delivering school content and concepts.

Enhanced student engagement (attendance, drop-out rates) with schools: Teachers and program implementation partners reported that the presence of tablets in schools has led to increased student engagement with classes, because of which attendance levels had also risen in some schools. Presence of playgrounds in schools had particularly added an important element of fun in schools, because of which students would utilize the playground, develop their social skills in a fun-environment. Together, these combined elements have reportedly improved school engagement and student attendance levels. Program partners also reported that in some schools, student drop-out rates had reduced, as both parents and students were beginning to feel that with the help of digital aids and exposure, students were learning important skills in schools. Studies in various contexts have also echoed these trends globally³²³³.

Enhanced school enrollment: As a result, program partners have reported that there has been an increase in student enrollment across some schools. In hilly terrains such as Sikkim, young students are no longer being sent to far-off schools away from home; but rather, are educated in the local schools themselves.

Sustainability

Community support through integration into local context: Involvement of local community in program implementation, through important stakeholders such as parents ensure program appetite, community monitoring, as well as adequate support for program implementation have ensured holistic adoption of interventions, while ensuring their sustainability. For E-learning programs, community support was ensured through multiple modalities: parent-teacher meetings and community involvement in setting up digital tabs.

Local contextual infrastructure was also taken into account to ensure end-to-end program management. Content was made available offline, and power-banks were given to schools to accommodate for lack of electricity, and sufficient internet connection. The foundation has also provided a local solar panels in respective schools to ensure a local source of electricity for charging tablets.

Operation & Maintenance: Programs had ensured sufficient operation and maintenance support during the funding period to ensure that labs would run smoothly. Trainings were to ensure that school staff and administration were sufficiently comfortable with technology adoption, and operation & maintenance

³¹ (PDF) Empowering Teacher Self-Efficacy On ICT: How Does Technology Leadership Play A Role? (researchgate.net)

³² Effectiveness of digital learning solutions to improve educational outcomes - A review of the evidence.pdf (unicef.org)

³³ Information and communication technology to improve school participation among upper secondary school students with special

educational needs - PubMed (nih.gov)

purposes. However, regular hand-holding support may-be required post program implementation to ensure content upgradation support, as well as technical support in case of technological hiccups.

On the other hand, teachers using school based tabs also recommended **enhancing cyber-security mechanisms for program sustainability, to ensure students only accessed educational content.**

Technological resilience of schools and communities: Programs like the Whatsapp based learning program, home-based tabs were set into motion to ensure that learning-gaps due to COVID-19 and school closures did not adversely impact students. Thus, program impact and its sustainability are closely tied together, and should be interpreted in terms of student & community abilities to navigate, adapt to digital learning platforms and systems. Through community engagement initiatives, as well as involving parents in student's e-learning processes among some programs, program implementation partners reported a mind-set shift among parents that learning through technology, and platforms like WhatsApp was possible. Therefore, by developing student digital self-efficacy, students, teachers and communities are well-prepared to face, and take advantage of digital transitions.

Coherence

Cipla supported E-learning programs display coherence at multiple levels – both external and internal. Externally, the program displays alignment with the Indian government's policy impetus; while internally, the program exudes harmonization across multiple program activities and contextually relevant needs to ensure program sustainability.

External Coherence:

1.Policy Coherence: Internationally, the Sustainable Development Goal 4 seeks to provide inclusive and equitable quality education. SDG Indicator 4.4.1 recognizes youth/adults with information and communication technology skills as essential for them to find employment, decent jobs, and entrepreneurship. National Education Policy 2020 calls for investments in digital infrastructure, online teaching platforms and tools, virtual labs, online assessments, and promoting multi-lingual approaches to teaching and learning. The Samagraa Shikha scheme by the Government of India, also seeks to provide quality education to students from class 1 – 12 and recognizes the importance of providing ICT Labs and Smart Classrooms.

The e-learning models include full-fledged establishment of digital labs, while others facilitate onlinelearning through home-based digital devices – either smart-phones, or tablets. All projects work with a multi-lingual, online-based pedagogy to impart quality education, fill-learning gaps and enhance educational ou

comes.

Alongside its contributions to ICT enablement, the e-learning programs also employed the installation of Solar Panels in remote geographies in Sikkim to power the labs. The provision of clean energy is aligned with SDG 7 that seeks to provide clean and affordable energy. The provision of ICT infrastructure to otherwise remote, low-income populations has aided bridging the digital divide, and thus contributed to SDG 10 – Reduced Inequalities.

In some projects, policy coherence of programs also materialized

nto an active-partnerships with the state during 2021-2022, for instance, in Cipla's work with the Himachal Pradesh state government to instrumentalize the WhatsApp based learning program in Solan across all government schools.

Internal Coherence

A. Academic Coherence:

Curricular coherence was ensured by partner foundations, making learning content highly useful. Learning content for e-learning modules drew on the respective state-board curriculum, or was designed in collaboration with SCERT and program teams to ensure harmonization of the remedial learning program with the school. This curricular coherence lends itself to establishing the program's relevance, as well as its effectiveness in improving and sustaining academic outcomes for children. Important academic actors such as teachers and headmasters were integrated as important intermediaries for the program implementation. Several trainings were conducted, to ensure they were onboard with the methods of digital pedagogy, and were able to integrate the lab into the time-table. Program partners ensured that they were directly involved in the program implementation, providing them either a teacher-coach app through which they could allocate teaching topics, up-skilling them in digital teaching pedagogy, or integrating them into the program implementation as facilitative actors as intermediaries between program implementation partners and parents.

At the same time, teachers would also benefit through program data driven approaches. The use of dashboard monitoring would give teachers insights into student learning gaps, and key focus areas. Further-more, asynchronous modes of learning would ensure that teachers were able to complete their syllabus faster, more efficiently. Stakeholder interactions with teachers revealed that the multi-modal learning pedagogy engages students across a variety of learning styles and paces, thus improving learning outcomes for students who traditionally do not perform as well.

B. Technological Coherence: Cipla supported programs carried out sufficient due-diligence to ensure that program activities were not repetitive, or redundant, through a systematic needs assessment. Thus, digital labs and tab provisions were made in contexts where there was a sufficient need-based appetite, and sufficient ownership for operation and maintenance support. Additionally, all programs had a technologically harmonious approach that catered to end-to-end needs. Alongside the provision of tablets, or a lab-set up, strong Operation & Maintenance support was also provided where needed in the form of device fitness check-ups, or trainings for teachers and headmasters. In areas where electricity is scarce, solar panels were also set up to power the digital labs. Moreover, due to lack of internet connectivity in high-altitude schools or remote locations, digital content was made available offline to prevent lags in learning processes. Where program models operated through personal mobile phones, program software was amended to enable multiple logins through the same smart phone to ensure inclusivity and equity in program access.

Vocational Skills

India, being the world's youngest nation, lays great emphasis on skill development initiatives as the direct link to economic growth and further reduction of unemployment. Consequently, various policies have been established by the government, focusing on youth skill development. The National Skill Development Mission, introduced in 2015, aims to impart vocational training to over 400 million people by 2022. Additionally, the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) has been launched to develop industry-relevant skills among India's youth. Despite these impressive initiatives, there is a continued need for improvement.

Recent Government data shows that only 5% of the Indian labour force have undergone formal skill training, in contrast to 68% in the UK, 75% in Germany, and 52% in the USA. These statistics emphasize the pressing need to accelerate India's skill development initiatives, policies, data, and the need for further skilled youth.³⁴ To contribute towards India's mission towards skill development, Cipla, by leveraging technology, innovation, and targeted interventions strive to address the unique needs and challenges faced by visually impaired individuals and ICDS teachers, SHGs, and vocational training graduates in India. Through collaboration, advocacy, and knowledge dissemination, these projects aim to create a more inclusive and equitable society, where every individual has the opportunity to thrive and succeed.

Cipla's comprehensive and collaborative partnership with Indian Institute of Chemical Technology (IICT) ensured research and development (R&D) initiative with focused on identifying optimal materials for face mask production was a unique PPP model during Covid. Through meticulous testing and model refinement, indigenous materials such as hydrophobic polypropylene, woven and non-woven fabrics, and textiles have been meticulously assessed to create highly efficient face masks which then was produced at mass scale by village based SHGs as well as elder groups.

Cipla supports Integrated Child Development Services (ICDS) education through its partner organisation. The initiative aimed at enhancing the skills and knowledge of IDCS teachers (anganwadi Tais and mukhya sevikas). By aligning with the New Education Policy 2020, Cipla has undertaken training programs for balwadi teachers and anganwadi tais, equipping them with essential skills in child development, disabilities awareness, and classroom management. Through parent engagement projects, facilitated by Anganwadi Tai's, Cipla aims to empower parents with crucial knowledge and skills, thereby enhancing community participation in child development.

Cipla's partnership support for Eye Way Helpdesk initiative stands as a beacon of support for visually impaired individuals, providing vital information and counselling services. By fostering awareness and capacity-building among differently abled individuals and organizations, Cipla strives to create a more inclusive society.

Moreover, Cipla's partnership with institutions like the Skill & Entrepreneurship Development Institute (SEDI) and ITI Panvel underscores its commitment to economic empowerment. Through vocational training programs and soft skill development initiatives, Cipla has empowered India's youth with the tools necessary for gainful employment and self-sufficiency.

Through collaboration, advocacy, and knowledge dissemination, the interventions aim to create a more inclusive and equitable society, where every individual has the opportunity to thrive and succeed.



³⁴ mission booklet.cdr (msde.gov.in)



#	Implementing agencies	Key Project	Key activities
1	Victoria Memorial School for the Blind	Eye way Helpdesk	The Eye Way Helpdesk, implemented at the Victoria Memorial School for the Blind serves as a one-stop resource and information repository for visually impaired individuals and provide trainings to support organisations and Individuals for capacity building of differently abled people.
2	Score Foundation	Eye way Helpdesk	Score Foundation's Eyeway Helpdesk aims to provide information and counselling support to visually impaired individuals across India and provide trainings to support organisations and Individuals for capacity building of differently abled people.
3	Learning Links Foundation	Skill4Future	The Skill4Future initiative by Learning Link Foundation addresses the employability challenges faced by vocational training graduates in India. By focusing on soft skill development, including communication, teamwork, and workplace English, the intervention aims to prepare students for the formal workplace environment and improve their job readiness.
4	Ambuja Cement Foundation	Training through SEDI	To engage local youth in some technical courses and train them based on the employment demand of the nearby industrial sector and help them in livelihood development through Skill & Entrepreneurship Development Institute (SEDI).
5	CSIR - Indian Institute of Chemical Technology	Multi-layer face mask production	Support towards research, designing, testing and production of 1,00,000 low-cost multi-layered face mask during the crisis posed by the global COVID-19 pandemic.
	Halo Medical Foundation	Multi-layer face mask production	Halo Medical Foundation implemented training and technical support to SHGs to manufacture scientific inexpensive, washable facemask with anti-microbial properties.
6	Sethu Child Development and friendly guidance	Gnyandeep Training in ICDS	Gnyandeep Training to strengthen Inclusive Education in the ICDS. Support towards training of balwadi teachers and Mukhiya Sevikas about Child Development, Disabilities and Classroom Management as well as Foundational Skills as highlighted within the New Education Policy 2020.
	Pratham Mumbai Education Initiative	ICDS training to anganwadi tai's	ICDS Training Support for Parent Engagement Model, Ensuring Learning Continuum of ICDS Supervisors and Anganwadi Tai's to the trained on Parent Engagement Model in Mumbai.

Theory of change

Eyeway Helpdesk-(Vocational skills)

INPUTS/ACTIVITY	OUTPUTS	OUTCOME	IMPACT	
Funds Received for program inception and sustainability	Increased number of visually impaired individuals accessing the Eyeway Helpdesk.	Through continuous promotional activities new callers rate increasing for	Long-term improvement in the quality of life and opportunities for visually impaired	
Human resources hired for operationalization of helpdesk	Provision of timely and	direct beneficiaries have been reached out in FY 2021-22.	Enables more Visually impaired	
Capacity building session and monthly review meetings have been conducted for the hired resources on counseiling techniques, assistive technologies, legal provisions, and relevant policies Promotion, outreach sessions and marketing campaign organized for eyeway helpdesk toll free number	on various topics such as accessibility, assistive technology, education, legal provisions, etc.	Approx 1,04,117 beneficiaries have been reached out indirectly through online promotional events (webinars)	to reach out to Help Desk and empower themselves with relevant and authentic information	
	21 training sessions have been conducted for the counsellors on delivery guality support to	assisting on various topics 21 promotional activities	Reduction in barriers and discrimination faced by visually impaired individuals in	
	the callers Through the promotion and marketing campaigns, Cipla has reached out to visually	(webinars), have been organized for providing information on topics ranging from counseiling, motivation, blind friendly assistive devices and government schemes	Accessibility, Assistive technology, banking, counselling, education, government policies, legal assistance and sports	
Development and maintenance of a comprehensive database of resources, services, and	impaired schools and Radio (Akash Vani) for reaching callers	Educating the counsellors on	Strengthening of the support ecosystem for visually impaired individuals, leading to	
information relevant to visually impaired individuals. WhatsApp groups have been formed to arrange dissemination of bulk information	Through the WhatsApp groups, the counsellors gathered information for the callers for assistance	blind friendly applications etc. which will enable them to guide the callers.	a more inclusive society.	

Skill development in soft skills and spoken English in ITI (Vocational skills)



Relevance:

Through contribution to this thematic area, Cipla has striven to address the unique needs and challenges faced by communities through designing, producing and distributing anti-micro bacterial face masks, training ICDS teachers and training graduates in various trades along with providing soft skills and spoken English training in India through leveraging technology, innovation, and targeted interventions.

- Currently, there are an estimated 4.95 million blind persons and 70 million vision impaired persons in India, out of which 0.24 million are blind children.³⁵ The National Sample Survey Organization (NSSO) estimates that nearly 70% of visually impaired individuals in India are unemployed or underemployed, reflecting the significant barriers they face in accessing gainful employment.³⁶ Through operationalizing the helpdesk and providing financial and operational support, Cipla aims at empowering such individuals through addressing the issue of information dissemination through training and hiring of helpdesk counsellors for needs of visually impaired individuals.
- In 2023, employability among Industrial Training Institutes graduates across India was about 34.2 percent, a decrease from 42.22 percent in 2017.³⁷ With a focus on soft skill development, the project contributes to making trainees job-ready, thus supporting the overarching goal of the Skill India Initiative. To bridge the gap between the skills possessed by students and the demands of the modern industry, Cipla partnered with multiple implementing agencies and designed the project to provide and support students with academic support, soft skills, personality development and spoken English and mask making skill to SHGs.
- The Integrated Child Development Services (ICDS) Scheme aims to enhance the capability of the ICDS teachers and mother to look after day-to-day health and nutritional needs of the child through proper nutrition and health education.³⁸ To contribute towards the same, Cipla has initiated training programs for balwadi teachers and Anganwadi Tai's, providing them with vital skills in child development, disability awareness, and classroom management. By organizing parent engagement projects, facilitated by Anganwadi Tai's, the foundation endeavours to empower parents with essential knowledge and skills, consequently boosting community involvement in child development efforts.

Effectiveness:

Despite the challenges posed by the COVID-19 pandemic, Cipla's skill initiatives adapted its operations to ensure uninterrupted support to beneficiaries. By leveraging technology and remote work capabilities under the Eyeway Initiative, the helpdesk efficiently catered to the needs of visually impaired individuals across India. To operationalize the helpdesk, Cipla enrolled helpdesk counsellors who receives the calls from Pan India and provide assistance and related support to the callers. Capacity building for these resources included soft skill to deliver quality support on counselling techniques, assistive technologies, legal provisions, and relevant policies.

For its skill development initiatives, the curriculum integrates hands-on activities, role-playing exercises, and real-world case studies to facilitate active learning and skill acquisition. Moreover, the program has integrated its course with SEDI and ITI Panvel's timetable ensures maximum participation without disrupting students' regular studies.

The curriculum is carefully crafted roadmap designed to equip students with practical skills and strategies for success. Each module is thoughtfully structured to address specific soft skills, such as communication, teamwork, problem-solving, and workplace etiquette, that are essential for professional growth and advancement.

³⁵ <u>Current estimates of the economic burden of blindness and visual impairment in India: A cost of illness study</u> <u>- PMC (nih.gov)</u>

³⁶ File341.pdf (npcbvi.gov.in)

³⁷ India: employability among ITI graduates 2023 | Statista

³⁸ Evaluation of ICDS Scheme of India.pdf (niti.gov.in)

The content has been translated in local language for ease of learning. Modules which were taught for spoken English in the project are as follows: Greetings and Introduction, Talking about things around us. Modules covered for soft skills & Personality Development are as follows: Effective Communication, Active Listening, Public Speaking and Assertive Behaviour.

Facilitators play a pivotal role in the success of the program, serving as mentors, guides, and role models for students. Recognizing the unique challenges inherent in teaching soft skills. Cipla invests in comprehensive training programs to equip facilitators with the necessary tools, techniques, and resources to deliver effective and engaging sessions.

Training sessions for facilitators focus not only on content delivery but also on pedagogical strategies, classroom management techniques, and interpersonal skills. Facilitators learn how to create a supportive and inclusive learning environment where students feel valued, respected, and empowered to participate actively. Moreover, they receive ongoing support and feedback to continuously refine their teaching practices and adapt to the evolving needs of their students.

This holistic approach not only enhances the relevance and effectiveness of the program but also fosters a culture of continuous learning and skill development within the institutions. The initiative recognizes the value of industry insights and real-world perspectives in enriching the learning experience for students. As such, the organization actively seeks out opportunities to engage with industry professionals, subject matter experts, and community leaders to enhance the effectiveness of the skill development programs.

Guest lectures, workshops, and interactive sessions led by external experts provide students with invaluable insights into current industry trends, emerging technologies, and best practices. Such sessions offer students the opportunity to network, build connections, and gain exposure to diverse perspectives and career pathways.

Efficiency:

Under the eyeway helpdesk initiative, for FY 2021-22, total of 11,000+ people were supported through direct helpdesk calls in the Eye way initiative. Indirectly, the helpdesk reached out to visually impaired individuals through 26 podcast sessions, 19 expert sessions and 21 support sessions with family and community members. Through maintaining an information database, provision of timely and accurate information to callers on various topics such as accessibility, assistive technology, education, legal provisions, etc was provided. The initiative demonstrated efficiency in its resource utilization and operational strategies by leveraging technology and adopting an online operational model.



Through skill training initiative, Cipla catered the academic and work readiness needs of **465 final year students** across 8 trades from ITI Panvel, Mumbai who are about to enter the workplace.

Trades	No. of students
Computer Operator and Programming Assistant	43

Draughtsman Mechanic	20
Electrician	57
Fitter	75
Instrument Mechanic	22
Machinist	48
Machinist Grinder	32
Mechanic Motor Vehicle	20
Mechanic Machine Tool Maintenance	21
Stenography	45
Turner	49
Wireman	33
Total	465

Impact:

Eye Way Helpdesk

The Eye Way Helpdesk has made a significant impact on the lives of visually impaired individuals, empowering them with essential information, guidance and support, contributing to their empowerment, social inclusion, and economic independence.

Indicators	Impact reach
Direct callers	11,393
Training sessions	21
Information on government schemes	1,381
Podcast/conversations	26
Eyeway sessions with Vis	8
Sensitization sessions with non-VIs	11
Weekly stories	34



- During the assessment of one sample help desk, total of 3,233 calls were received.
- From quarter 1 to quarter 2, number of calls increased by 32% from 437 to 581.
- From quarter 2 to quarter 3, number of calls jumped to 36% from 581 to 793.
- From quarter 3 to quarter 4 a jump of 79% has been recorded from 793 to 1,422.

Through this initiative, visually impaired were enabled to reach out to Help Desk and empower themselves with relevant and authentic information. Following table indicates the issues addressed for each quarter and types of assistance required by the callers.

Issues	April 21-June 21	Jul 21-Sep 21	Oct 21-Dec 21	Jan 22- Mar 22
Accessibility	43	107	26	59
Assistive Technology	156	16	7	60
Banking	1	16	26	14
Counselling	109	71	100	93
Education	20	161	61	81
General Information	122	61	133	105
Government Policies Guidelines	169	409	386	321
Legal Assistance	2	6	18	9
Social Security	185	-	1	62
Training	24	24	35	28
TOTAL	831	871	793	832

Jan 22-March 22 data has been generated based on average of previous quarters.

The initiative facilitated access to educational resources and government schemes, empowering visually impaired individuals to pursue academic and skill development opportunities. Through webinars and counselling sessions, beneficiaries received guidance on educational pathways and career options, leading to enhanced educational outcomes.

By providing information on employment opportunities, vocational training programs, and assistive technologies, the project contributed to improving employment prospects

or visually impaired individuals. Counselling sessions and capacity-building workshops equipped beneficiaries with the skills and confidence to pursue gainful employment and entrepreneurial ventures.

Telephonic interviews been conducted with 6 available beneficiaries revealed that they availed support for documentation support, employment queries and selection process of govt. jobs. He was supported with getting aware about the job openings and application process for national reserved jobs for PwDs, banking assistance etc.,

Through the one to one interaction with the respondents, overall observations are as follows:

- 100% of the respondents recorded their satisfaction towards the support provided.
- 100% of the respondents would like to avail the support in future and will recommend others to use the same.
- 100% of the respondents have agreed that through the helpdesk, there has been an impact in the support ecosystem through increased scope of networking and building a chain of resources. Through the helpdesk, there has been a contribution towards creating a more inclusive society and better quality of life.

Skill development initiative

Cipla's skill development initiative contributed positively towards improvement in students' soft skills proficiency, confidence levels, and communication abilities. The impact includes improved spoken English, workplace readiness and improved employability scope for the students.

An assessment at ITI Panvel was carried out to understand the impact created through this project. Improved academic and practical performance of students against the baseline has been observed. Students have acquired soft skills that contribute to personal and professional growth.

The details are as follows:

Spoken English

Assessment parameters:

S.no.	Sub-skills	Indicators
1	Initiating conversation	Students able to initiate the conversation/ask questions if any
2	Responding appropriately	Students able to comprehend the question and respond accurately to the questions asked
3	Conversational Skills	Students able to hold a conversation for a minute using any giving situation
4	Business Social Skills/Customer Service Social Skills	Students demonstrating social skills appropriateness



- Comparing students' performance from baseline, increase of 45% was recorded in Spoken English against the baseline of 29%.
- Across genders, an increase of 46% against the baseline in boys and 45% improvement was observed against the baseline in girls


- Across the 12 trades, there was an improvement in spoken English against the baseline.
- Average of 35% to 40% improvement is seen in the average scores from baseline to endline across trades.



- Against the baseline, students improved their proficiency level to 16% from Nil.
- Against the baseline of 1% of independent user, endline recorded 84% students in independent level of speaking English.
- During the baseline, 25% students were at basic user proficiency. In the endline, 1% students are remaining as a basic user of the English language.
- The results indicated that more students were able to comprehend and express themselves to others with confidence.

Mock Interview

Assessment parameters:

Sub-skills	Indicators	
	 Appearance and overall first impression 	
	2. Interview responses	
Mock Interview Questions	3. Overall verbal communication	
	4. Non-verbal communication	
	5. Closing the interview	

Employability skills

Assessment parameters:

Sub-skills	Indicators	
	1. Learning to learn	
S off skill	2. Communication skills	
SOTI SKIII	3. Teamwork	
	4. Problem Solving	

• For learning to learn, the endline records an improvement of 11% against the baseline of



average scores.

- For communication, endline recorded an increase of 28% against the baseline.
- For teamwork, 16% increase in average students scored has been recorded against the baseline.
- For problem solving, 4% increase has been recorded against the baseline.

Through other skill development initiatives, Cipla has impacted students through improved confidence and adaptability in students for the formal workplace environment. Students have received training on enhancing ability to communicate with diverse stakeholders in the workplace.

Students equipped with enhanced soft skills are better positioned to secure employment, excel in their chosen fields, and adapt to the evolving demands of the workplace. Students have received better workplace environment and growth opportunities. The ripple effects of improved employability extend beyond individual graduates to encompass families, communities, and the broader economy, creating a positive feedback loop of prosperity and opportunity.

Sustainability:

Cipla is committed to enhancing healthcare access and improving societal well-being and has implemented a range of initiatives aimed at fostering sustainable development across diverse sectors. Vocational skill interventions encompass areas such as healthcare, education, skill development, and support for differently abled individuals. Through strategic partnerships, community engagement, and innovative approaches, Cipla endeavours to address pressing challenges while promoting long-term sustainability and inclusive growth. Through R&D and production of face masks, the initiative seems sustainable as it focuses on developing indigenous materials for face masks and transferring the technology to industrial partners. By providing affordable and durable face masks to communities, it not only meets the immediate need but also creates a revenue-generating ecosystem that supports self-help groups and entrepreneurs.

ICDS training programs for balwadi teachers and Mukhiya Sevikas contribute to the sustainability of early childhood education. Empowering these educators with skills aligning with the New Education Policy 2020 ensures continued quality education delivery even beyond the immediate project duration.

Skill initiatives through SEDI and ITI Panvel, providing vocational training aligned with market needs, institutes contribute to the employability and skill development of youths. The emphasis on holistic growth, placement support, and micro-enterprise setup enhances the long-term impact of the initiative. Focusing on soft skill development for vocational training graduates enhances their employability and job readiness. Improving soft skills prepares individuals for long-term success in the formal workplace environment, contributing to their sustainable career growth.

Serving as a resource hub for visually impaired individuals and providing training for capacity building enhances the sustainability of support services for the differently abled. By addressing information and counselling needs and offering training, the initiative ensures ongoing support for the visually impaired community.

Coherence:

Cipla's vocational skill initiatives are directly in lined with national skill development policies by supporting academic and soft skill requirements of the students. The national policy indicates its mission to empower all individuals through improved Skills, Knowledge, Nationally and Internationally recognized qualifications to gain access to decent employment and ensure India's competitiveness in the Global Market.³⁹

The initiatives contribute to the following SDG goals:

Research and development (R&D) for face mask materials

SDG 3: Good Health and Well-being, by promoting access to quality healthcare through the production of effective face masks.

SDG 9: Industry, Innovation, and Infrastructure, by fostering innovation in material science for healthcare applications.

Training programs for educators

SDG 4: Quality Education, by enhancing the skills and knowledge of educators, thereby improving the quality of education.

SDG 5: Gender Equality, by ensuring equitable access to education and training opportunities for educators, including both men and women.

Parent engagement projects through Anganwadi Tai's - This activity contributes to:

SDG 1: No Poverty, by empowering parents with knowledge and skills to enhance their children's development, potentially breaking the cycle of poverty.

SDG 4: Quality Education, by fostering community involvement in early childhood care and education.

SDG 10: Reduced Inequalities, by promoting inclusive education and community participation regardless of socioeconomic background.

Vocational training programs

³⁹ Official website of Department of Vocational Education & Skill Development, Government of Uttar Pradesh, India (upvesd.gov.in)

SDG 8: Decent Work and Economic Growth, by providing skills training that enhances employability and contributes to economic empowerment.

SDG 9: Industry, Innovation, and Infrastructure, by promoting inclusive and sustainable industrialization and fostering innovation in vocational training.

SDG 10: Reduced Inequalities, by providing equal access to vocational training opportunities, thus reducing disparities in employment.

Eye Way Helpdesk initiative for visually impaired individuals

SDG 3: Good Health and Well-being, by providing counselling and support services to improve the wellbeing of visually impaired individuals.

SDG 4: Quality Education, by promoting inclusive education and ensuring equal access to information and resources for visually impaired individuals.

SDG 10: Reduced Inequalities, by addressing the needs of marginalized groups and promoting social inclusion for people with disabilities.

Research

Cipla, through Cipla Foundation, supported CSIR-CDRI to supplement the institute's mandate to encourage graduate and postgraduate students to pursue medical research career through practical handholding support in subject matter and practical exposure through establishing 2 laboratories. Through the intervention, 15 postgraduate students were trained in drug discovery through online programs and hands-on laboratory training.

Enrolling 175 students for conducting outreach programs online, the project engaged students across 50 colleges in Lucknow and nearby districts through webinars in drug discovery, antimicrobial resistance (AMR), animal testing, and cancer. Hands-on training was provided by the institute on topics such as laboratory safety, good laboratory practices, chemical reactions, cell culture, and use of major laboratory equipment. Students also gain experience in data collection, processing, and conducting laboratory projects in both chemistry and biology labs.

The emergence and rapid spread of antimicrobial resistance (AMR) poses a grave threat to public health globally, and particularly so in India. With its unique combination of a dense population, a significant disease burden, and diverse healthcare practices, India stands at a critical juncture in the global battle against AMR. The phenomenon of antimicrobial resistance (AMR) refers to the ability of microorganisms, such as bacteria, viruses, fungi, and parasites, to evolve and become resistant to the drugs that were previously effective against them.⁴⁰AMR is a crisis within the Indian healthcare system as it severely hampers the effective treatment of infectious diseases, leading to higher mortality rates, longer hospital stays, and increased healthcare costs. Addressing the challenge of AMR in India requires a comprehensive, multifaceted, and well-coordinated response.⁴¹

Recognizing the critical need for robust medical research and academic training in the field of drug discovery, anti-microbial resistance (AMR), animal testing and cancer, Cipla along with its implementing agency Central Drug Research Institute has been instrumental towards establishing science outreach laboratories.

Through this research and training program, 2 science labs with basic facilities and necessary research equipment have been set up, which primarily focuses on educating students in drug discovery techniques which contributes towards research in critical areas such as Anti-Microbial Resistance (AMR), Cancer, and Rare Genetic Disorders.

By promoting collaboration between academia and industry, the program aims to elevate scientific research capabilities and drive innovation in healthcare.

Details of the research program:

- Cipla Lab for Science Outreach- Undertaking online training of 15 students (MS) through webinars, classes and assignments including setting up of Lab for R&D and training. Training of graduate/post graduate students, preferably the students from colleges with meagre laboratory facilities will be considered under this program.
- Establishing and operate 2 labs for science outreach program in which students from (MS) background will be trained through webinars, classes and assignments.
- Conducting outreach programs for graduate/postgraduate students and enrolling 175 students
- Organizing training workshops and conferences with subject experts for 175 students
- Students trained on designing and synthesizing bioactive New Chemical Entities (NCEs) and repurposing drugs for Anti-Microbial Resistance (AMR) and Cancer
- Students trained on screening compounds for effectiveness against cancer and AMR.

⁴⁰ main.icmr.nic.in/sites/default/files/upload documents/AMR Annual Report 2021.pdf

⁴¹ The Challenge of Antimicrobial Resistance in the Indian Healthcare System - PMC (nih.gov)



Research on Anti-Microbial Resistance



Relevance:

The proposed collaboration between CSIR-CDRI and Cipla addresses critical gaps in scientific research and education by establishing outreach labs and centres focused on drug discovery, antimicrobial resistance (AMR) and cancer. The research emphasizes on enhancing scientific temperament and encouraging youth towards scientific research is aligned with national priorities for capacity building in STEM fields. This partnership was also first of its kind in space of CSR post 2019 amendment in CSR which allowed CSR funding the Govt established research institution to promote PPP for public good.

National Education Policy 2020 states as a part of professional education, technical training on pharmacy which is critical to India 's overall development, will not only be a greater demand for well qualified manpower but it strengthen the collaborations between industry and higher education institutions to drive innovation and research in the fields.⁴²

In alignment with the Science, Technology and Innovation Policy (STIP) objective of bringing about profound changes through short-term, medium-term, and long-term mission mode projects by building a nurtured ecosystem that promotes research and innovation, the research aligns with the vision of CSIR-CDRI to advance drug research and development in India, addressing healthcare needs. Collaboration with Cipla ensures industry involvement, enhancing relevance and practical applicability.⁴³

Effectiveness:

The intervention from the institute also aimed to effectively train postgraduate students in drug discovery through online programs and hands-on training in laboratory settings. By enrolling 175 students and conducting outreach programs, the program demonstrates an effective strategy for engaging and developing the next generation of scientific leaders.

Establishment of 2 labs for science outreach and research centers demonstrated effective utilization of resources. Online training programs and outreach activities targeting graduate/postgraduate students enhance effectiveness due to ease of participation by individuals from remote places where access to resources and knowledge is limited.

Efficiency:

The utilization of funding support from Cipla to establish and operate two labs for science outreach demonstrates efficient resource allocation. Furthermore, the focus on developing non-infringing synthetic routes for high-valued drugs and screening compounds for AMR and cancer highlights a cost-effective approach to drug discovery and research.

Collaboration minimizes duplication of efforts and maximizes impact through shared expertise and resources. By leveraging existing infrastructure and expertise at

CSIR-CDRI, the program maximizes efficiency in delivering training and conducting research activities.

Impact:

Development of skilled human resources:

175 students across 50 colleges from Lucknow and nearby districts have been enrolled in the program for attending webinars. 6 subject wise webinars have been conducted on the following subject matters:

1. Fundamentals of drug discovery: The overall drug discovery research was discussed while giving idea regarding hit, lead, pre-clinical and clinical candidates identification. Conducted by Dr. Sanjay

⁴² NEP Final English 0.pdf (education.gov.in)

⁴³ <u>Draft 5th National Science, Technology, and Innovation Policy for public consultation | Department Of Science & Technology (dst.gov.in)</u>

Batra, Senior Principal Scientist and Professor (AcSIR), 140 participants have attended the webinar through online mode.

Through the webinar, the participants learnt about the following topics:

- Traditional route to drug discovery and development including how the project is conceived and initiated,
- Methods for identifying the lead compound during drug discovery,
- Inputs which are necessary for compound to proceed further into the developmental pipeline,
- The role of bioassays, pharmaceutics, pharmacokinetics, pharmacology and toxicology and
- Repurposing of drug and the milestones at which the Artificial intelligence makes its impact in the drug discovery.
- 2. Chemistry in drug discovery and Metabolic Disorders: Indian Scenario and Indigenous Solutions: 90 participants have attended the webinar through online mode. Two topics were covered in the webinar which are as follows:
 - Chemistry in drug discovery conducted by Dr. Prem P Yadav discussed the importance of chemistry research in the field of drug discovery and development. The webinar also discussed about the aspects of natural products and diverse synthetic approaches based drug discovery and the critical role of chemistry at every step of drug discovery viz, hit and lead identification, lead optimizations and identification of preclinical and clinical candidates.
 - Metabolic Disorders: Indian Scenario and Indigenous Solutions conducted by Dr. Anil N. Gaikwad discussed the metabolic diseases burden in the country and whole world, its factors and implications, and ways to control the progression. The webinar also discussed research on phytopharmaceuticals effective in controlling lipid profile and its development.
- 3. Animal Testing: General Principals, Practices and Ethics: 160 participants from two colleges- Deen Dayal Upadhyay Govt PG College, Sitapur and Netaji Subhash Chandra Bose Govt Girls PG College Lucknow have attended the webinar on Animal testing, its general principals, practice and ethics by Dr. Rajdeep Guha. Through the webinar, principals and ethical practices involved in the animal testing on different experimental animals has been discussed in detailed. An overview of selection of appropriate animal model for the drug screening purpose was presented.
- 4. Metabolic Disorders: Problems and solutions in Indian context: 250 participants have attended the webinar conducted by Dr. Gaikwad. The webinar discussed the metabolic diseases burden in the country and whole world, its factors and implications, and ways to control the progression.
- 5. Visible Light Mediated Oxidative Functionalization of Nitrogen-Heterocycles by utilizing Chlorophyll as Photocatalyst: 400 participants have attended the webinar conducted by project assistant Ms. Saira Banu. Participants learnt about the photocatalytic role of crude chlorophyll towards oxidative functionalization of indoles.
- 6. Structure Elucidation of Organic Compounds by NMR and Mass Spectroscopy: 250 participants joined the webinar conducted by Dr. Prem P Yadav. The webinar covered the background about the presenter's research work and the need for structure elucidation in organic chemistry. The presenter extensively discussed about Mass spectrometric, and NMR based characterization with examples from his lab and discussed live characterization using these techniques.

15 MS students were enrolled in training at CSIR-CDRI under Cipla was conducted.

Students have received a hands on training on Basic Lab Skills which includes Laboratory safety, Good Laboratory Practice (Exposure to model chemistry and biology labs with focus on behavioural aspects), performing chemical reaction, cell culture, in-vitro screenings with emphasis on using major laboratory equipment such as HPLC, Rotavapor, Microscope etc, data collection and data processing such as NMR, Mass, IR, X-ray etc. v), software used in chemistry and biology labs for data processing (Topspin, Chemdraw, MS Office, Excel, Prism etc.)

Students also learnt about conducting laboratory project/assignments through giving a short-term laboratory project wherein they need to synthesize small molecules around privileged scaffolds followed by in-vitro screening. Students from chemical sciences and life sciences have received a hands on experience to work in chemistry as well as biology labs.

At the end of the workshop participants learned about the followings:

- The role of natural products in drug discovery
- Target- based drug discovery process
- HCS and HTS Approaches in biological screening
- Good laboratory practices and Ethics
- The safe lab techniques and procedures

During the course feedback, participants recorded that such type of workshops should be held often as it offers them a great opportunity to interact with the Scientific fraternity and get to know about that discipline with hands-on training.

Transformation of the scientific research landscape:

For Chemistry for AMR and Cancer-Design and synthesis of bioactive NCEs and Drug Repurposing for AMR and Cancer, following progress has been achieved through the project tenure:

- Lab scale process for the APIs Umifenovir and Centhaquin have been achieved
- 15 Derivatives of Umifenovir have been prepared and 6 Hits identified against SARS-Cov-2
- 23 Derivatives of Centhaquine have been prepared and submitted for biological activity
- Scaffold Hopping of PB28 is under progress



The scaffolds have been broadly selected considering the diversity and relevance with the ongoing research activities across the world. The chemistry development is in progress and libraries has been synthesized followed by in-house screening against various cancer and bacterial cell lines. Students have been trained to basic skills of synthetic chemistry to produce small molecule libraries.

The collaboration between CSIR-CDRI and Cipla has the potential to foster collaborations and innovation, leading to advancements in drug discovery and healthcare. Research on AMR, Cancer, and Rare Genetic Disorders has the potential to significantly impact public health outcomes, addressing critical healthcare challenges.

Contribution to the fight against AMR and Cancer through drug discovery and repurposing efforts, leading to improved treatment options and public health outcomes. Advancement in the field of drug discovery and healthcare, fostering innovation and addressing unmet medical needs.

Sustainability:

Collaboration between CSIR-CDRI and Cipla lays the foundation for long-term partnerships, fostering sustainability. Through this research program, Cipla has ensured core competency of 15 MS students who can pursue the research for further studies and opportunities.

Through outreaching 175 students from 50 colleges for subject wise webinars have contributed through providing insights and knowledge to young minds leading to develop interest and curiosity towards the subject matter which can provide them competitive edge for their future career and have contributed towards building a sustainable ecosystem for scientific research and drug development.

Coherence:

The program's objectives and activities are coherent with the broader goals of promoting scientific research, enhancing workforce readiness, and addressing key health challenges such as AMR and cancer. Cipla reflects a strategic alignment of resources and expertise to achieve mutual objectives in advancing scientific research and education.

The Sustainable Development Goals (SDGs) are a set of 17 global goals adopted by the United Nations in 2015 to address various social, economic, and environmental challenges worldwide. The program has contributed towards to following SDG goals:

Goal 3: Good Health and Well-being:

This goal aims to ensure healthy lives and promote well-being for all at all ages. The research directly contributes to this goal by focusing on drug discovery and repurposing efforts to combat Anti-Microbial Resistance (AMR), cancer, and rare genetic disorders, ultimately leading to improved public health outcomes.

Goal 4: Quality Education:

This goal aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Contributing to this goal by providing training programs, webinars, and workshops to engage students and educators in scientific research and drug discovery, thereby enhancing scientific literacy and research capabilities.

Goal 9: Industry, Innovation, and Infrastructure:

This goal aims to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation. Cipla contributes to this goal by establishing collaborative labs, fostering partnerships, and promoting innovation in drug discovery and healthcare research.

Goal 17: Partnerships for the Goals:

This goal emphasizes the importance of global partnerships and cooperation in achieving the SDGs. The program exemplifies this goal by bringing together CSIR-CDRI, Cipla, and potentially other corporate foundations to collaborate on scientific research, education, and healthcare initiatives.

By aligning with these SDGs, the CSIR-CDRI and Cipla demonstrates its commitment to addressing global challenges and contributing to sustainable development efforts.

Scholarship

At the forefront of India's educational landscape are its diverse educational institutions, ranging from government-run schools to private universities. While India is on its track to expanding access to education, particularly at the primary level, disparities persist in terms of quality, infrastructure, and educational outcomes across different regions and socio-economic strata. As per the objective of Central Sector Scheme of Scholarship for College and University Students i.e. to provide financial assistance to the meritorious students having family income of less than Rs.4.5 lakh per annum, to meet a part of their day-to-day expenses while pursuing higher studies.⁴⁴

Cipla's commitment to recognizing and supporting academic excellence is exemplified through its tradition of felicitating meritorious students, particularly those facing hardships. In the fiscal year 2021, the foundation continues this tradition by honouring more than 1,500 students from various government and government aided schools with Merit Awards, acknowledging their dedication and achievements in board examinations. Through the merit awards, Cipla contributed through sponsoring schools in multiple locations- Himachal Pradesh, Sikkim, Indore. Patalganga, Mumbai, Bhiwandi, Kurkumbh, Bangalore and South Goa.

Cipla, in its commitment to advancing education and empowering students, has undertaken several impactful initiatives aimed at supporting education through scholarship programs. These initiatives reflect Cipla's dedication to fostering learning opportunities for diverse groups, ranging from underprivileged students to those with specific needs, thereby contributing to the broader goal of societal upiftment.

Cipla partnered with TMC sponsored "Kevat - Patient Navigation Program in Oncology," located at the Tata Memorial Centre, Mumbai. This initiative represents a pioneering effort in the healthcare sector, providing specialized training to ten individuals in Post Graduate Diploma in Patient Navigation in Oncology. Through this initiative, participants acquire comprehensive knowledge of oncology essentials, narrative medicine practices, and psycho-social frameworks, empowering them to enhance cancer care delivery and patient experiences.

Cipla's commitment to nurturing talent is evidenced by its sponsorship of scholarships for pharmacy students across multiple locations. This initiative supports 23 deserving students pursuing B. Pharm and D. Pharm courses, providing financial assistance for their academic pursuits and career aspirations.

Cipla provided financial support to pay fees for children affected by the COVID-19 pandemic, who faced the risk of dropping out of educational institutions due to financial constraints. This intervention assisted 1,309 students from 13 schools/colleges/Institutes of Konkan Muslim Education Society (KMES) in Bhiwandi, ensuring continued access to education during challenging times.

Cipla's community-based teaching-learning intervention targets the improvement of learning levels among children facing educational disparities. 1,787 children by enhancing their reading and arithmetic competencies. This initiative also emphasizes digital literacy by providing access to online library resources and conducting training sessions for mothers to support academic activities at home. 406 students have benefited directly from community interventions, while 558 parents have received educational support and 73 mothers from marginally disadvantaged communities have undergone capacity building exercises.

In response to the socio-economic disruptions caused by the COVID-19 pandemic, Cipla launched an emergency sponsorship program for 150 students who lost the breadwinner of their families. By covering school fees, tuition expenses, and providing essential stationary, Cipla ensured that these students could continue their education without interruption, mitigating the risk of dropouts and facilitating their transition to government schools where necessary.

Education plays a pivotal role in socio-economic empowerment of Persons with Disabilities. Recognizing its crucial role. The Directive Principles of State Policy in the Constitution of India and the Rights of Persons with Disabilities Act, 2016 have underlined the role of the state in realization of the Right to Education for Persons with Disabilities.⁴⁵ Under the initiative of supporting PwDs, Cipla extends its support to visually impaired students at the Victoria Memorial School for the Blind, located in Mumbai. Through this

⁴⁴ Department of Higher Education | Government of India, Ministry of Education

⁴⁵ <u>DEPDGuidelines</u> 1.pdf (scholarships.gov.in)

intervention, Cipla, in collaboration with its implementing agency Victoria Memorial School of Blind (VMSB), provides holistic rehabilitative support to ten visually impaired students. This includes access to education, vocational training, and socio-emotional support, empowering visually impaired students to thrive in a conducive learning environment.

Cipla's commitment to holistic community development is evident in its initiatives aimed at empowering adolescents from marginalized communities. Through exposure visits and interactive sessions, 16 adolescent girls and boys from Pratham programs in Uttar Pradesh and Bihar were provided with insights into various aspects of societal challenges, including child trafficking and labour exploitation.

Geographical cov	erage	
Himachal Prodesh Solan	Sikkim East Sikkim	Gaa _ South Goa
Kamataka _ Bangalore	Madhya Prodesh Indore	Maharashtra - Mumbai - Pune - Raigad
Impact in Numbers		SDG Alignment
4300+ stude scholarships awards,	ents supported through and school fees, merit and exposure visits	

Details of the intervention:

#	Implementing agencies	Key Projects	Key Activities
1	Cipla (Self-implemented)	Project Vedica	Support scholarships for 2 young women students who have lost the sole bread winner of their family due to COVID-19.
		Merit Awards	Merit Awards FY 2021-22 at the following locations- Himachal Pradesh, Sikkim, Indore, Patalganga, Mumbai, Bhiwandi, Kurkumbh, Bangalore and South Goa.
		Scholarship program	Cipla providing scholarship to 490 students from 25 government aided schools.
2	Tata Memorial Centre	Project Kevat	Post Graduate Diploma in Patient Navigation in Oncology - Kevat for 10 students
3	Pratham Mumbai Education Initiative	Community Learning Program- Dahisar Students exchange visit	Community learning engagement focused on improving learning levels of 1,800 children in Dahisar.

		Scholarship to KMES students	Students exchange exposure visit for 16 children from these blocks of Bihar and Uttar Pradesh to Mumbai for learning purpose.
			Supplementing with financial support to pay fees to schools for those children affected due to Covid to 1,309 students of Konkan Muslim Education Society (KMES), Bhiwandi and 150 students from Thane & Mumbai.
4	Indian Institute of Chemical Technology	M. Sc. (Chemistry) students from North-Eastern States	Orientation and training programme for M. Sc. (Chemistry) students from North-Eastern States (FY 2021-22)
5	RA Foundation	Happy Kids Program	Happy Kids Program with the help of RA Foundation
6	Goa college of Pharmacy	Scholarship for B.Pharma and D.Pharma	Educational Support for students at Goa College of Pharmacy
7	Victoria Memorial School for the Blind	Sponsorship of 10 Visually Impaired students	Sponsorship of 10 Visually Impaired students of the Victoria Memorial School for the Blind for three years from July 2019 to March 2022
8	Baddi University of Emerging Science & Technology	B.Sc. (Medical) Course- Svaavalamban	Support towards stipend paid to 25 students admitted in B.Sc. (Medical) and getting practical exposure based on their attendance and academic performance.

Theory of change

Students training in patient navigation (Scholarship)



Scholarship interventions



Relevance:

School and college scholarships in India hold immense relevance in promoting access to education, encouraging academic excellence, supporting talent development, addressing social and economic disparities, and strengthening the education ecosystem. By investing in scholarships, the government, educational institutions, corporations, and philanthropic organizations, Cipla has contributed significantly to creating a more inclusive, equitable, and prosperous society where every individual has the opportunity to fulfil their educational potential and contribute meaningfully to nation-building.

As National Education Policy, 2020, envisions for increased access, equity, and inclusion through a range of measures, including greater opportunities for outstanding public education; scholarships by private/philanthropic universities for disadvantaged and underprivileged students; online education, and Open Distance Learning (ODL) and all infrastructure and learning materials accessible and available to learners with disabilities⁴⁶, Cipla's scholarship initiatives, scholarship to visually Impaired and merit awards in government and government aided schools are in lined and relevant under National Education Policy.

As a part of supporting hand in healthcare support, Cipla along with its Implementing agency provides training to students in patient navigation for patient diagnosed with cancer. Which is being diagnosed and treated at various levels in the Government health care system. The Government has taken a range of steps in recent years to address the challenge of cancer more effectively. These range from population level initiatives for prevention, control and screening for common types of cancer, to strengthening cancer care infrastructure.⁴⁷ Under the National Cancer Registry Programme (NCRP), the program states to recognize new regional cancer centres and strengthening of existing cancer centres and capabilities, Cipla's Kevat initiative comes under relevance.

Effectiveness:

The Merit Awards initiative has proven highly effective in acknowledging and incentivizing academic excellence among underprivileged students. By recognizing top performers from government, government-aided, and special schools, the program not only celebrates individual achievements but also inspires a culture of educational excellence within the community. Through tangible rewards and public recognition, students are motivated to strive for academic success, thereby potentially improving overall educational outcomes and opportunities for advancement.

The Kevat initiative, being the only course providing skills and training in patient navigation in India, has demonstrated remarkable effectiveness in equipping healthcare professionals with specialized skills and knowledge in patient navigation in oncology. By offering comprehensive training and practical insights, the program empowers participants to address gaps in cancer care delivery, advocate for patient needs, and drive positive changes in healthcare systems. The skills acquired through the program enable graduates to play pivotal roles in improving patient experiences and outcomes, ultimately contributing to enhanced quality of cancer care nationwide.

As a part of Cipla's COVID-19 response, providing educational assistance (sponsorship) has demonstrated effectiveness in mitigating the adverse impact of the pandemic on students' education and their families. By providing financial support for school fees and educational expenses, the program prevents potential dropouts and ensures continued access to education for affected students. The assistance with documentation and administrative processes further facilitates smooth implementation, enabling timely support delivery to vulnerable families during these challenging times.

Cipla's community based teaching learning intervention in the districts of Maharashtra has proven effective in improving learning levels among children and promoting digital literacy within communities. The focus on face-to-face teaching activities and digital literacy initiatives equips children with essential skills for academic success and prepares them for future opportunities. Cipla's community interventions has been effective in achieving its objectives through digital literacy, in which the provision of online library storybooks and digital training, children have gained access to a diverse range of educational

⁴⁶ NEP Final English 0.pdf (education.gov.in)

⁴⁷ doc202251656201.pdf (pib.gov.in)

materials, enhancing their digital literacy skills. Cipla impacted 1,787 children through digital storybooks. Training and capacity-building initiatives for parents have empowered them to provide academic support at home, resulting in increased parental involvement in their children's education. Cipla through its agencies impacted 558 parents through parent education programs. Feedback and follow-up mechanisms have facilitated continuous monitoring and evaluation of learning outcomes, with significant improvements observed in language and math competencies among enrolled children. 405 enrolled children have enhanced their language and math competencies.

Scholarship support for 10 Visually Impaired students initiative has been highly effective in providing holistic rehabilitative support and educational opportunities for visually impaired students. Cipla, by sponsoring education, accommodation, and support services, the program creates a nurturing environment where students can thrive academically and socially. This comprehensive support not only enhances the quality of life for visually impaired students but also empowers them to pursue their dreams and contribute positively to society.

Cipla's supported exposure visit initiative for 18 students from Uttar Pradesh and Bihar, has proven highly effective in broadening horizons and inspiring social responsibility among adolescent students. By providing opportunities for experiential learning and engagement with social issues, the program instils a sense of purpose and drive for positive change. The interactions with city highlights, law enforcement agencies, and community stakeholders empower students to become agents of change within their communities, potentially fostering a culture of social awareness and activism.

Efficiency:

The Merit Awards initiative has been effective in motivating students and fostering a culture of academic excellence. By providing tangible rewards and recognition to top-performing students, the initiative not only acknowledges their hard work but also serves as an incentive for others to strive for academic success. This has the potential to positively impact educational outcomes and increase retention rates among underprivileged students.

Cipla's Oncology training demonstrates efficiency in its resource utilization and training methodology. By concentrating resources on specialized training modules tailored to the needs of oncology patient navigation, the program optimizes impact while minimizing unnecessary expenditure. The training has been based on the following modules: Preventive oncology, health psychology, working with individuals, groups and families, mental health and wellbeing of the patient including self-awareness and counselling skills. The structured curriculum and hands-on learning approach ensure that participants acquire relevant skills efficiently, maximizing the return on investment in terms of improved cancer care delivery and patient outcomes.

Cipla, by targeting specific areas of need, such as school fees, scholarships, and stipends, the foundation ensures that resources are directed towards initiatives that generate the greatest benefit for beneficiaries. Across locations, streamlining verification processes, such as home assessments and document procurement, further enhances the efficiency of program delivery, ensuring that support reaches those most in need in a timely manner ensures effectiveness of the scholarship initiatives. Additionally, the monthly follow-up mechanism ensures accountability and utilization of scholarship funds, thereby enhancing program efficiency and effectiveness while minimizing duplication of efforts.

For the support to VIs, the deployment of online education tools such as Google Meet and the utilization of educational apps like DIKSHA⁴⁸, a national platform for school education, an initiative of National Council for Educational Research and Training (NCERT), under the Ministry of Education (MoE) used by teachers, have facilitated uninterrupted learning during challenging times. The provision of holistic health services, including therapeutic interventions and counselling, has been effective in addressing the diverse needs of the students. Extracurricular activities have also contributed to the overall development and well-being of the students.

⁴⁸ Homepage (diksha.gov.in)

Cipla's community intervention in Dahisar has been effective through volunteer engagement of trained monitors and volunteers who has facilitated the distribution of educational materials, book exchanges, and follow-ups with beneficiaries, optimizing resource utilization. 77 trainer monitors have been trained and capacitated on how conducting community and home based classes and parents capacity building for Smart mothers. During community based activities, weekend activities and support class interventions have provided targeted learning opportunities, maximizing the impact of the intervention within the community. 406 children are part of the support class intervention.

Through Cipla's exposure visit to Mumbai, adolescents were exposed to city highlights and various communities, gaining insight into the realities of child labour and trafficking. Interactions with police officers and visits to police stations helped dispel stigma and fear, empowering adolescents to advocate against child trafficking. The visit inspired adolescents to take action within their communities. They shared newfound knowledge and experiences, spreading awareness about the dangers of child trafficking and advocating for education for all children. Adolescents were selected from Pratham programs based on their demonstrated improvement and potential to become advocates for change, optimizing the impact of the visit within the target communities.

Impact:

Cipla's initiatives to promote quality education have touched the following lives:

- 490+ students supported through Merit Awards across locations.
- 10 students supported with training program in Oncology through project Kevat.
- 16 students supported with educational exposure visit in Mumbai.
- 10 visually impaired students supported for their education.
- Scholarship paid for 25 students from B.Sc., Medical stream and 23 students from D. Pharma and B. Pharma.
- 1,649 students from multiple schools supported with school fees across locations.
- 1,787 students supported with bridging age-appropriate learning gap during Covid.

Cipla has a direct impact on the lives of students by providing financial assistance in the form of merit awards. By recognizing and rewarding academic achievement, the initiative boosts the morale of students, instils a sense of pride in their accomplishments, and encourages them to pursue further education and career opportunities.

The program has a significant impact on the quality of cancer care and patient outcomes. Graduates of the Kevat program are well-equipped to implement patient navigation programs in hospitals, thereby enhancing the accessibility, quality, and efficiency of cancer care services. By advocating for optimal patient care systems and socio-economic support, program participants contribute to a more equitable healthcare landscape and better outcomes for cancer patients and their families.

Cipla's initiatives have had a profound impact on the lives of beneficiaries and the broader community, empowering individuals to break the cycle of poverty and improve their socio-economic prospects. Beneficiaries of the educational support programs have experienced tangible improvements in academic performance, increased access to higher learning opportunities, and enhanced socio-economic well-being. Additionally, initiatives aimed at building a skilled healthcare workforce contribute to addressing critical shortages in the healthcare sector and enhancing the overall quality of healthcare services in the region. These outcomes highlight the foundation's success in creating lasting positive change and promoting sustainable socio-economic development within the communities it serves.

Cipla's scholarship assistance during COVID 19 prevented school dropouts and academic disruptions among students affected by the pandemic, ensuring continuity in their educational journey. By covering school fees and addressing financial hardships, the foundation supported the educational aspirations of vulnerable students, promoting educational equity and resilience in the face of crisis. During beneficiary interaction in Mumbai, following students and their families were interviewed:

Zuber Khan, 16 year old lost his father during COVID. He lives with his mother and elder sister in chawl room without washroom facilities in Kurla Mumbai. Cipla, during the period of FY 21-22 supported Zuber through providing INR 12,000 scholarship for his future studies. Zuber and his mother are deeply grateful

for the support provided. Zuber's mother currently is the breadwinner through selling clothes and other products through social media and home based tailoring set up. Through Cipla's support, Zuber is currently attending 11th standard with commerce stream. For further studies, Zuber would like to opt for management studies or Information Technology.

Varsha and Gauri Sharma, studying in 9th and 10th standard respectively, received support through Cipla. Girls lost their father in COVID period which led them to vacate their current home to shift in rented room in Kurla, Mumbai. Their mother is working multiple shift in a day as a domestic help in nearby areas. Through Cipla, both the girls have received INR 12,000 each per annum as part of academic support covering their annual school fees. Cipla also engaged its project team in assisting the family in receiving government pension of INR 1,200 monthly (vidhwa pension), INR 10,000 one time (Bal Nidhi-COVID scheme) and INR 50,000 one time during COVID times. The family and girls are very grateful towards Cipla for helping them to make their ends meet.

Sumit Mandoli, 18 years old student studying in 12th standard wants to work in Banking Industry after his graduation. Sumit living with his mother and sister, lost his father during COVID which made his mother to work around neighbouring homes as a domestic help. Their monthly family income is INR 11,000 which doesn't suffice domestic expenses and children's fees. Sumit and his mother cried during the beneficiary meet thanking Cipla for their support and help.

Shahid Sameer, 15 years old student studying in 10 standard. He is living with his mother and elder sister in a different place post losing his father in COVID. Through Cipla, Shahid has received INR 12,000 as a part of scholarship along with other government pensions post losing family member in COVID. Mother working as a domestic help, shahid's family couldn't help them financially. Shahid and his mother were very thankful towards Cipla for their scholarship.

Shikha and Anchal Verma are living in a small room in Kurla, Mumbai. Shikha studying in 9th standard and Aanchal in 7th, lost their father during COVID times leading to their mother working as a staff in a shopping mall. Their family income in INR 10,000 per month. Cipla's scholarship of INR 24,000 for both girls have been effectively used in their school fees and afternoon tuitions. Both the girls were thankful and felt grateful towards the contribution.⁴⁹

Cipla's Merit Scholarships enabled students to pursue higher education in pharmaceutical sciences, thereby expanding their career opportunities and contributing to the development of skilled professionals in the healthcare sector. By supporting both continuing and new students, the foundation ensured continuity and access to education for a broader cohort of beneficiaries.

Cipla's scholarship to Visually Impaired has created ripple effect in their lives. The students post the intervention, have access to the followings: Educational Progress: Despite challenges posed by the pandemic, the deployment of online education tools ensured continuity in learning. The utilization of the DIKSHA app facilitated access to quality educational content, aiding in academic progress. Skill Development: Extracurricular activities such as music, dance, and paper bag making contributed to the overall skill development and creative expression of students. Health and Well-being: Holistic rehabilitative health services, including therapeutic interventions and counselling, positively impacted the mental and emotional well-being of students. Social Inclusion: By providing free holistic education and accommodation to visually impaired students from low-income families, the initiative promoted social inclusion and equal opportunities for all. Cipla's scholarship initiative, in collaboration with VMBS, has made commendable strides in providing holistic rehabilitative health services to visually impaired students. Through a combination of educational, therapeutic, and extracurricular activities, the initiative has positively impacted the lives of students, empowering them to thrive in a nurturing environment.

Through Cipla's community intervention in Dahisar, the initiative has impact through the following: A significant proportion of children and parents have been enrolled and actively engaged in the program, demonstrating high levels of community participation and ownership. The initiative successfully enrolled 1787 (96%) children out of the total 1859 children in the community, aged between 4 to 14 years. Improvements in reading, arithmetic, and digital literacy skills have been noted among enrolled children, indicating positive learning outcomes. 405 enrolled children have enhanced their language and math competencies. Parents have become more actively involved in their children's education, with many

⁴⁹ Names of the beneficiaries have been changed for the reporting purpose.

assuming roles as facilitators and smart mothers, thereby contributing to a conducive learning environment at home. 558 parents (Direct Beneficiaries) learned teaching methodologies and became facilitators for their own children.

Cipla's exposure visit impacted through adolescents gained a deeper understanding of child labour and trafficking, expressed shock at the realities they learned, and resolved to take action within their communities to combat these issues. Adolescents, post returning to their homes, will go back with a newfound sense of purpose and commitment to advocating for the rights of children in their communities. Through targeted experiences and knowledge-sharing, adolescents have gained awareness, empowerment, and **a** renewed sense of purpose to advocate for change within their communities.

Sustainability:

The sustainability of the initiative lies in its continuity over the years, demonstrating Cipla's long-term commitment to education. By consistently felicitating meritorious students, the initiative contributes to building a supportive educational ecosystem that fosters academic excellence and socio-economic mobility within the community.

The sustainability of the Kevat program lies in its capacity-building approach and long-term impact on healthcare delivery. By training a cadre of professionals in patient navigation in oncology, the program creates a sustainable framework for improving cancer care services across different healthcare settings. The program's emphasis on evidence-based practices and resource management ensures its continued relevance and effectiveness in addressing evolving healthcare challenges.

Through continued training and capacity building for stakeholders, including parents and volunteers, to ensure the sustainability of community intervention in Dahisar beyond the intervention. 77 Volunteers have received digital training as well as certification for their volunteer ship and training. Strengthening partnerships with local stakeholders and fostering community ownership to sustain the momentum of the intervention and foster long-term impact. The team has been working with a total of 558 parents through monthly workshops.

Coherence:

Through various initiatives including merit awards, scholarship for the VIs, oncology students, college and school students, Cipla has impacted its students and other indirect beneficiaries. By leveraging strategic partnerships, innovative approaches, and a steadfast commitment to inclusivity and equity, Cipla endeavours to make tangible contributions towards achieving the SDGs, thereby shaping a more equitable, prosperous, and sustainable future for all.

Merit Awards for Board Exam Toppers

SDG 4: Quality Education - Recognizing and incentivizing academic achievement contributes to the promotion of quality education, especially for students from underprivileged backgrounds.

Patient Navigation Program in Oncology (Kevat)

SDG 3: Good Health and Well-being - Improving patient navigation in oncology care contributes to better health outcomes and well-being for cancer patients and their families.

Educational Support for Underprivileged Students in Mumbai

SDG 4: Quality Education - Providing educational support to underprivileged students helps in ensuring inclusive and equitable quality education for all.

Scholarship Support for Pharmacy Students in Goa

SDG 4: Quality Education - Supporting students pursuing pharmacy education contributes to achieving inclusive and equitable quality education.

SDG 3: Good Health and Well-being - Supporting students pursuing medical education contributes to building a skilled healthcare workforce and improving health outcomes.

Support for Visually Impaired Students

SDG 4: Quality Education - Providing holistic support to visually impaired students ensures inclusive and equitable quality education.

Community-Based Teaching Intervention

SDG 4: Quality Education - Improving learning outcomes through community-based teaching interventions contributes to the promotion of inclusive and equitable quality education.

SDG 1: No Poverty - Supporting children affected by the loss of a breadwinner contributes to poverty alleviation.

SDG 4: Quality Education - Ensuring continued education for children affected by COVID-19 aligns with the goal of achieving inclusive and equitable quality education.

Exposure Visit for Adolescents

SDG 4: Quality Education - Providing exposure and education to adolescents contributes to achieving inclusive and equitable quality education.

SDG 10: Reduced Inequalities - Addressing the needs of marginalized adolescents contributes to reducing inequalities within and among countries.

Environmental Sustainability

The Government of India has launched the novel scheme of creating urban forest, known as Nagar Vana Udyan Yojana. Which aims to plant minimum of 20 hectares of forests in the cities. Cities authorities are encouraged to have a city forest comprising area up to 100 ha in forest area within their jurisdiction for deriving maximum ecological and environmental benefits. This is also linked to the Schools Nursery Yojana that aims to build lasting bond between students and nature.⁵⁰

Cipla extends its commitment beyond healthcare to environmental sustainability and the promotion of urban greenery. Recognizing the critical importance of environmental conservation in fostering healthier communities, Cipla has actively engaged in initiatives aimed at enhancing urban green spaces and promoting plantation activities. Cipla collaborates with esteemed organizations to address pressing societal challenges and foster comprehensive development.

In alignment with its vision of promoting environmental sustainability and increasing urban greenery, Cipla has partnered with organizations such as the Greensole Foundation (GF) to empower marginalized communities with focus on school going children by furnishing them with footwear and masks, contributing to the enhancement of health outcomes and overall well-being. Through internally implemented initiatives, Cipla has extended support to various environmental initiatives, including the maintenance of Kalbalu Lake and garden, alongside overseeing the successful plantation of 3,000 saplings in Ramkulla Delmi, within the Dhar district. Additionally, in collaboration with the Victory India National Organization (VINO), Cipla has undertaken efforts towards the maintenance and aesthetic enhancement of a pond situated in Malpur village, facilitating the planting of 2,800 saplings, and enhancing the overall appeal and functionality of the area.

To support further in the cause, Cipla partnered with Centre for Advanced Research and Development (CARD) to implement plantation work in Kakalpura village of Nalchha block and Girls Hostel of Mohanpur village.



⁵⁰ Untitled-1 (pib.gov.in)

Details of the activities:

#	Implementing agencies	Key Projects	Key Activities
	Cipla (self	Maintenance of Kalbalu Lake and garden	Support to Kalbalu Panchayat and Jigni Industries Association for maintenance of Kalbalu Lake and garden.
	implemented)	Plantation drive	Support provided towards Plantation of around 3,000 saplings in Ramkulla Delmi, Dhar district.
2	Greensole Foundation	Donation drive	Support provided towards recycling 2,000 foot pair and 1,000 face mask and distribute to children from 20 schools located in slums of Mumbai and rural regions of Maharashtra.
3	Centre for Advanced Research and Development (CARD)	Project Hariyali	Support provided towards plantation of 5,000 forest saplings in Kakalpura village of Nalchha block and Girls Hostel of Mohanpur village.
4	Victory India National Organization (VINO)	Plantation drive	Support provided towards maintenance and beautification pond in Malpur village needed maintenance and to plant 2,800 saplings (2,500 in Forest area and 300 in roadside and pond area).

Plantation activities in Kakalpura location (Environmental sustainability)



Relevance:

As per the joint report by UNESCO and WHO, there are 1.2 billion people who wake up every day without any kind of footwear whatsoever while more than 350 million pairs of shoes are discarded each year.⁵¹ To support the cause, the National Resource Efficiency Policy (NREP) aims to enhance resource efficiency and promote the circular economy. The policy focuses on sustainable production and consumption, waste management, and the recycling of waste materials.⁵²

In line with Nagar Vana Udyan Yojana aiming at plantation of 20 hectares of forest saplings in the cities, Cipla through its partner organisation organized plantation activities and maintenance of water bodies and gardens in multiple locations through multiple partners and self-implementation, create relevance through aiming at protecting, restoring and enhancing India's diminishing forest cover and responding to climate change by a combination of adaptation and mitigation measures under National Mission for Green India (GIM). The mission outlines the National Action Plan on Climate Change (NAPCC) which is directly in lined with the mission statements of GIM directing contribution towards increasing the reach and improvement of quality of the tree cover to the extent of 5 million hectares on forest/non-forest lands.⁵³

Effectiveness:

The plantation activities contribute towards planting 10,800 saplings in various locations.

Out of which, to support provide a health environment, Cipla planted 1,000 saplings in girls hostel in Dhar district. To conduct the plantation drives, Cipla's plantation activities includes the following steps to ensure effectiveness:

Identification of Suitable Plantation Areas: Factors such as soil type, sunlight exposure, and water availability are considered to maximize the success of reforestation efforts has been considered in discussions with forest department.

Procurement and Transportation of Saplings: Timely procurement and transportation of 10,800 saplings across locations.

Plantation of Saplings: The successful planting of 8,000 saplings in Dhar district and 2,800 in Solan district contributes to ecosystem restoration and biodiversity conservation, enhancing the overall environmental resilience of the region.

Efficiency:

During the plantation activities to ensure efficiency in the plantation of saplings across locations, selected of diverse tree species, including Bamboo, Neem, and Mango, ensures ecological resilience and supports ecosystem functions. Each species plays a unique role in ecosystem services such as carbon sequestration, soil fertility enhancement, and water regulation, thus maximizing the environmental benefits of the plantation. To ensure efficient plantation, Cipla followed following steps:

Irrigation Facility: Installation of irrigation systems to ensure adequate water supply for sapling growth, especially during dry periods.

Land Preparation: Clearing of land, levelling, and soil conditioning to create suitable planting conditions for saplings.

Weeding: Removal of weeds and unwanted vegetation to reduce competition for nutrients and sunlight.

⁵¹ Sustainability - GreenSole

⁵² <u>Draft-National-Resourc.pdf (moef.gov.in)</u>

⁵³ About the Mission | The Official Website of Ministry of Environment, Forest and Climate Change,

Government of India (moef.gov.in)

Pit Digging: Digging of pits at appropriate intervals for sapling planting, ensuring proper spacing and aeration.

Staggered Contour Trench: Construction of contour trenches to capture rainwater and prevent soil erosion, promoting moisture retention and soil fertility.

Planting and Basin Preparation: Planting saplings in prepared pits and creating basins around them for water retention and root development.

Protection Measures: Implementation of protection measures, including anti-termite spray and application of tonic, safeguards saplings from pests and diseases helps in preventing sapling damage, and enhance their survival and growth.

Impact:

Cipla's activity under Environmental Sustainability theme has impacted beyond immediate health benefits to encompass environmental conservation, poverty alleviation, and economic empowerment, exemplifying its multifaceted approach to sustainability and social responsibility.

As mentioned in the Promoting quality education section, Cipla's recycling initiatives of upcycling 2000 footwears and 1,000 mask has created few environmental impact along with plantation initiatives, which are as follows:

• Environmental Impact:

Cipla emphasis on upcycling discarded shoes significantly reduces carbon emissions and minimizes environmental pollution. According to the life cycle assessment report conducted by Cipla, each pair of upcycled footwear saves approximately 10.8 pounds of CO2 emissions, contributing to environmental sustainability and climate resilience.

Through the refurbishment and upcycling of discarded shoes, Cipla promotes environmental consciousness by diverting waste from volunteering drives and landfills and reducing the demand for new footwear production.

By giving a second life to used shoes, the program minimizes the environmental impact associated with the manufacturing and disposal of footwear, contributing to resource conservation and sustainable consumption patterns.

The plantation of 10,800 diverse tree species contributes to carbon sequestration, mitigating the effects of climate change. Following are the types of species planted in Dhar district:

- Bamboo: Contributes to soil stabilization and erosion control, with potential applications in construction and handicrafts.
- Baheda: Known for its medicinal properties, used in traditional Ayurvedic medicine for treating respiratory ailments and promoting digestive health.
- Custard Apple: Provides edible fruit rich in antioxidants and vitamins, supporting local nutrition and livelihoods.
- Karanj: Valued for its oil-rich seeds, used in biodiesel production and traditional medicine.
- Seasham: A hardwood species used in furniture making, construction, and fuelwood.
- Neem: Known for its medicinal properties and pest repellent qualities, offering multiple benefits to the environment and local communities.
- Bottle Palm: Ornamental palm species adding aesthetic value to the surroundings.
- Shishum: Valued for its hardwood used in furniture making and decorative woodwork.
- Gulmohar: Known for its vibrant flowers, enhancing the beauty of the landscape.
- Jamun: Produces edible fruit rich in antioxidants and minerals, supporting local nutrition.
- Karanj: Valued for its oil-rich seeds and medicinal properties.
- Mango: Provides delicious fruit and shade, contributing to local livelihoods and well-being.

• Health and Social Impact:

Cipla contributes to raising awareness about the importance of waste reduction and recycling, fostering a culture of environmental stewardship among community members and stakeholders. Cipla creates employment opportunities for trained youth and women involved in the refurbishing process, providing them with a source of income and economic empowerment.

Through plantation in hostel, Cipla has provided a platform for students to learn about the importance of biodiversity, steps required in plantation, participating in fostering a culture of environmental stewardship.

Sustainability:

Cipla, by combining social impact with financial sustainability, ensures the long-term viability of the impact created through footwear upcycling footwears and masks conducting plantation and maintenance activities, promotes self-reliance among communities.

The emphasis on post-plantation maintenance and community involvement underscores a commitment to long-term sustainability. By ensuring the survival and growth of saplings, the initiative lays the foundation for ecosystem resilience and environmental sustainability in the region. Post completion, all the saplings planted have been handed over to relevant authorities of both the location. The upcycled footwear and mask distribution activity promotes sustainability through its innovative approach to addressing social and environmental challenges.

Through partnerships, community engagement, and education on health hygiene and environmental awareness, the Cipla's CSR initiatives towards environmental sustainability through minimizing waste, reducing carbon emissions and increasing the green cover area contributes to a more sustainable future.

Coherence:

Collaboration between Cipla and implementation partners exemplifies coherence in addressing complex societal challenges through partnership and collective action. By leveraging complementary strengths and resources, Cipla maximizes its initiative's impact and effectiveness, demonstrating the power of collaboration in driving positive change.

The activities are aligned with broader development goals related to health, education, and environmental sustainability, contributing to the overall well-being of comunities. Along with Cipla's mission to increase green cover and promote sustainable production, the programs contribute towards the following SDG goals:

Goal 3: Good Health and Well-being

Distributing footwear and masks helps prevent foot-related diseases and reduces the risk of illnesses transmitted through unprotected feet and poor air quality, thereby promoting good health among children. Improved air quality and access to green spaces resulting from the plantation activities contribute to better health and well-being for the communities.

Goal 8: Decent Work and Economic Growth

Recycling model of refurbishing discarded shoes creates employment opportunities for trained youth and women, contributing to sustainable economic growth.

Goal 11: Sustainable Cities and Communities

By refurbishing and distributing footwear and plantation, Cipla contributes to creating sustainable communities by addressing a basic need, promoting environmental sustainability through upcycling, enhancing green spaces, and promoting environmental stewardship within the communities.

Goal 12: Responsible Consumption and Production

The recycling program exemplifies responsible consumption and production practices by upcycling discarded shoes, reducing waste, and minimizing the environmental impact associated with the production of new footwear.

Goal 13: Climate Action

Through the upcycling process, Cipla contributed to reducing carbon emissions and contributes to mitigating climate change, aligning with efforts to address climate-related challenges. By planting trees and enhancing green cover, the Cipla helps mitigate climate change by sequestering carbon dioxide and reducing greenhouse gas emissions.

Goal 17: Partnerships for the Goals

Cipla partnered with multiple implementation partner across locations, demonstrates the importance of partnerships in achieving sustainable development objectives, leveraging resources and expertise to maximize impact.

Disaster Response

India is highly susceptible to natural hazards, attributed to its geographical location, climatic conditions, and high population density. 59 percent of the landmass is exposed to earthquakes of moderate to very high intensity, 12 percent of the area is floods and river erosion prone. Cyclones and tsunamis threaten close to 5,700 km out of the country's 7,500 km long coastline. Nearly 68 percent of the cultivable area is prone to droughts and large tracts in hilly regions are susceptible to landslides and snow avalanches.⁵⁴

Contribution towards affected population during a natural calamity such as cyclones, landslides and floods, Cipla, as part of its commitment towards corporate social responsibility, has been at the forefront of providing critical support to affected communities across India. The foundation's response efforts have been comprehensive, encompassing various aspects of relief and recovery to address the multifaceted needs of disaster-affected populations.

Cipla through its partners has undertaken various projects aimed at providing immediate relief support to communities affected by natural disasters across India. Through partnerships with reputable organizations such as HelpAge India and AmeriCares, as well as direct engagement with district administrations, Cipla has responded to address the urgent humanitarian needs arising from cyclones, landslides, and floods in regions including Odisha, Mumbai, Kerala, Tamil Nadu, and West Bengal in FY 2021-22.

The responses aimed to address the urgent needs of vulnerable families by delivering essential food and hygiene items, ensuring their well-being and resilience in the aftermath of the disaster.

#	Implementing agencies	Key Projects	Key Activities
		Emergency Response- Odisha	Immediate Relief Support towards YAAS Cyclone - response through HelpAge India in the Mahakalpada block of Kendrapada district of Odisha.
1	HelpAge India	Emergency Response-Raigad	Immediate Relief Support towards Mumbai landslide-response through HelpAge India in the Mumbai Location.
		Emergency Response-Kerela	Immediate Relief Support towards Kerala Flood response through HelpAge India.
		Emergency Response-Tamil Nadu	Immediate Relief Support towards Tamil Nadu Flood response through HelpAge India.
2	Indo Global Social Service Society	Emergency Response-West Bengal	Immediate Relief Support towards YAAS Cyclone - response through Indo-Global Social Service Society in the Namkhans, Sagar block of South 24 Paraganas District, West Bengal.
3	Cipla (Self- Implemented)	Emergency Response-Raigad	Disaster Response - Support to relief measures by Raigad District Administration in the heavy rainfall and landslide affected areas in Raigad district.
4	AmeriCares India Foundation	Emergency Response-Mahad	Maharashtra Flood 2021 - Support to Relief Measures in Mahad & Chiplun.

Details of the project:

⁵⁴ NDMP- Starting.cdr (ndma.gov.in)



Disaster Response-Cyclone Yaas



Relevance:

As a part of all emergency response, an immediate disaster response to cyclone Yaas was provided by Cipla in partner with HelpAge India, supporting the affected through meeting their emerging needs. The response program was highly relevant as it addressed the urgent needs of communities affected by Cyclone Yaas, providing essential food and hygiene items to the vulnerable families.

The response was aligned with the immediate survival requirements identified in the rapid needs assessment, demonstrating a clear understanding of the situation on the ground.

The vision of the National Policy on Disaster Management (NPDM) is to foster a safe and resilient India through the development of a comprehensive, proactive, multi-disaster-oriented, and technologydriven strategy. This strategy emphasizes a culture of prevention, mitigation, preparedness, and response. One of the primary objectives of the NPDM is to ensure an effective response and relief effort with a compassionate approach towards the needs of vulnerable and affected segments of society.⁵⁵

The collaboration between Cipla and multiple implementing partners for disaster response is clearly aligned with the NPDM's objectives. This partnership resonates with the foundation's mission of "caring for life" for underserved communities through immediate cyclone relief efforts.

Effectiveness:

The response effectively delivered immediate survival support to affected families, providing essential food items, personal hygiene materials, and nutritious supplements.

Cipla has been present in the location for several years, working with 55 Elderly Self Help groups (ESHGs) who have mobilized 811 families including elderly persons during a response towards Yaas cyclone in Odhisa. Beneficiaries were identified through physical verification and consultation with Village Level Federations (VLFs), ensuring that the assistance reached those most in need.

These Elders Self Help Groups are spread across multiple locations in district of Odisha and West Bengal for the last seven years and has presence in proposed intervention area through Self-Help Groups (ESHGs) and their higher level federation.

Following activities were conducted to ensure effectiveness of the support:

Needs Assessment and Planning: The project team conducted a rapid needs assessment in collaboration with local organizations and VLF representatives to identify immediate survival requirements, including food, shelter, and hygiene items.

Procurement and Transportation: Quality relief materials were procured following Cipla's procurement policies. These materials were transported to the project location and stored securely in warehouses.

Distribution Process: Beneficiaries were identified through physical verification, and relief kits were distributed transparently with the help of local volunteers and community representatives. The distribution process was completed with meticulous attention to beneficiary verification and documentation.

Efficiency:

The procurement of relief materials followed the procurement policy of the corporate, ensuring quality standards were met. Transportation and distribution were efficiently managed with the support of local organizations, volunteers, and VLF representatives, reaching remote villages in a timely manner. Following activities were conducted to ensure efficiency in the support:

⁵⁵ Annexure-I (mha.gov.in)

Timely Intervention: The relief program provided crucial support to the families affected by the calamities, offering immediate survival food and hygiene packages. This timely intervention helped the survivors recover from the devastation and rebuild their lives.

Transparent Distribution: The distribution process was transparent and accountable, with thorough beneficiary verification and documentation. This ensured that relief materials reached the intended beneficiaries, enhancing trust and credibility.

Community Engagement: The involvement of local organizations, village-level federations, and volunteers facilitated community engagement and ownership of the relief efforts. This collaborative approach strengthened the effectiveness of the program.

Vulnerable Population Support: Special attention was given to vulnerable populations, including elderly individuals, who were provided with dignity and respect during the relief distribution. This targeted support addressed the specific needs of vulnerable groups in the disaster affected areas.

Impact:

Through Cipla, the relief support contributed to improving the well-being and resilience of affected communities, addressing food insecurity and hygiene concerns.

Immediate Relief:

Through Cipla's immediate response, 4,000+ households have been supported:

- 800 households in Chennai
- 600 households in Kerala
- 811 households in Odisha
- 555 households in West Bengal
- 1,370 households in Maharashtra

More than 600 hygiene kits and 770 drinking water kits have been provided. 55 elderly SHGs volunteered during the time of crisis supporting Cipla.

The distribution of survival food and hygiene packages met the immediate needs of cyclone-affected families, ensuring access to essential commodities for sustenance. In a snapshot,

- Immediate Survival Food Package:
 - Rice & Wheat Flour: Basic staples for sustenance and cooking.
 - Pulses (Toor Dal, Chana Dal): Protein-rich legumes for nutrition.
 - Cooking Oil and ingredients: Essential for cooking meals, spices, sugar salt etc.
 - Nutritious Supplement Items: High-nutrient foods such as Dalia or Sattu power, Soya chunks, to supplement dietary needs.
- Hygiene Kit:
 - Bath Soaps: Personal hygiene essentials
 - Detergent Soaps: Laundry detergent for washing clothes.
 - Face Masks: Protection against airborne particles and pathogens, especially crucial during the COVID-19 pandemic.
- Shelter Support:
 - Temporary Shelter Materials: Polythene sheets/tarpaulins for temporary shelter construction, protecting families from the elements.
- Health and Sanitation Support:
 - Health Camps and Medicines: Provision of medical consultations and essential medicines to address health needs in the aftermath of the disaster.
 - Mosquito Nets: Protection against mosquito-borne diseases, ensuring a safe sleeping environment.
- Energy Access: Alternate Electricity Arrangements: Provision of solar lamps, candles, etc., to ensure access to lighting in areas where electricity supply was disrupted.

- Clothing and Bedding: Blankets: Warmth and comfort during adverse weather conditions.
- Kitchen Utensils: Basic cooking and eating utensils for meal preparation and consumption.
- Livelihood Support: Support for Temporary Income Measures: Assistance for farmers transitioning to alternative livelihood activities such as vegetable cultivation, given the damage to standing crops.
- Replantation Drive: Support for the recovery of livelihoods through the replantation of tree crops like Mango, Jackfruit, Guava, Coconut, and Lemon varieties.

Enhanced Resilience: By providing support during a time of crisis, the relief program contributed to enhancing the resilience of affected communities, enabling them to cope with the aftermath of the calamity and begin the recovery process.

Community Empowerment: The collaborative approach fostered community empowerment and solidarity, strengthening social cohesion and collective resilience against future disasters.

Dignified Assistance: The program prioritized dignity and quality in relief provision, affirming the rights and humanity of the survivors and promoting a sense of dignity amidst adversity.

These support measures aimed to address the immediate needs of the affected families, ensuring access to food, shelter, hygiene, healthcare, and livelihood opportunities in the aftermath. The comprehensive relief package reflects a holistic approach to disaster response, prioritizing the dignity, well-being, and resilience of affected communities.