Prepared for:

Godrej Consumer Products Limited

Impact Assessment and Social Return on Investment

Elimination of Vector-Borne Endemic Diseases (EMBED) Project (2020-2023)

Elimination of Mosquito Borne Endemic Disease (EMBED) is Godrej Consumer Producer Limited (GPCL) effort to contribute to India's national goal of malaria elimination by 2030 and dengue control. It aims to reduce morbidity and mortality due to malaria and dengue in rural and urban areas respectively through information and education of communities via behaviour change communication campaigns and building capacity of healthcare workers on correct diagnosis and treatment of cases. The programs across rural and urban areas were tailored differently to meet the unique needs of these regions. It was primarily based on mosquito behaviour, breeding habits and human livelihoods. Hence, the rural program focused on malaria while the urban program focused on dengue.

The program is implemented in partnership with Family Health India (FHI) and Centre for Health Research and Innovation (CHRI) with the support and guidance of the Departments of Health and Family.

The current report provides an Impact Assessment and Social Return on Investments (SROI) of the program from FY 2020 to FY 2023 in program districts of Chhattisgarh, Madhya Pradesh and Uttar Pradesh.

For this, the study ensured the participation of key stakeholders such as community members, healthcare workers/ASHA workers, government officials and other stakeholders. A total of 1155 beneficiaries were surveyed for the study.

Impact of EMBED in Rural Areas

The Rural EMBED program aimed at reducing the prevalence of malaria in rural, high-risk villages across program districts. The program implemented in collaboration with local governments, health departments and communities focused on strengthening systems, promoting preventive measures and improving access to timely diagnosis and treatment.

The following section highlights the key impact findings of the Rural EMBED program.

Improvement in awareness of malaria within the sample.

- Most prominent medium of knowledge sharing under EMBED was home-to-home visits (82%) and community level meetings (55%).
- Decent knowledge (64%) of symptoms of malaria.
- Decrease in respondents' waiting period between symptoms and testing.

SROI of Rural EMBED

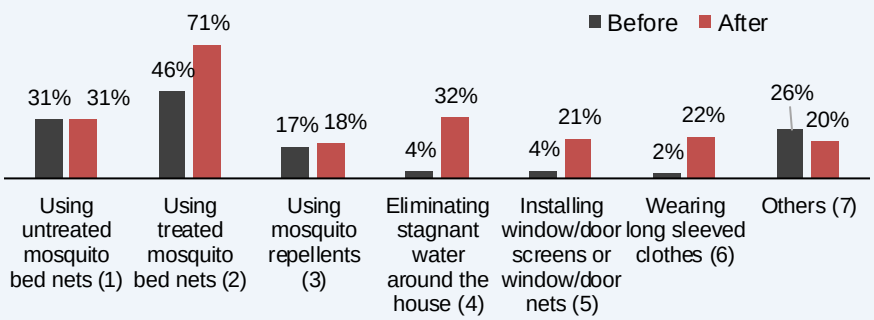
1:5.79

The SROI of Rural EMBED implies that for every rupee invested in the program, it generated Rs. 5.79 worth of social value.

Rs. 71,12,82,295 total value created from Rs. 12,27,27,821 Invested.

Increase in adoption of mosquito prevention methods within the sample

- There has been a substantial increase in usage of treated bed nets and elimination of stagnant water around the house. Majority of respondents were encouraged by EMBED to take up these preventive measures.



Malaria Incidence and Testing

- Within our sample, 63% got tested for malaria, of which 38% got tested through mass screenings. The prevalence of mass screening highlights proactive approach for disease control under EMBED.
- Around 72% of respondents with cases in their homes stated that ASHA workers encouraged testing after getting symptoms.
- The role of ASHA workers for testing increased after EMBED program by 10%.
- Discussion with community members revealed that most respondents (60%) believe that malaria has declined in the village to some extent while 34% believe that it has declined to a great extent.

"After the ASHA workers received proper training, they required less time for malaria testing using rapid diagnostic test (RDT) kits. As a result, treatment times also decreased, and treatment completion rates improved due to regular household follow-ups."

- Dr. S.S. Tekam, District Malaria Officer, Bastar, Chhattisgarh

Impact of EMBED in Urban Areas

The Urban EMBED program aimed at reducing the prevalence of dengue in urban, high-risk areas such as slums across program districts. The program implemented in collaboration with local governments, health departments and communities focused on strengthening systems, promoting preventive measures and improving access to timely diagnosis and treatment.

The following section highlights the key impact findings of the Urban EMBED program.

Improvement in awareness of dengue within the sample.

- Most prominent medium of knowledge sharing under EMBED was home-to-home visits (92%) and community level meetings (62%).
- Decent knowledge (82%) of symptoms of malaria.
- Decrease in respondents' waiting period between symptoms and testing.

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SROI of Urban EMBED

1:4.92

The SROI of Urban EMBED implies that for every rupee invested in the program, it generated Rs. 4.92 worth of social value.

Rs. 32,40,36,161 total value created from Rs. 6,57,68,436 Invested.

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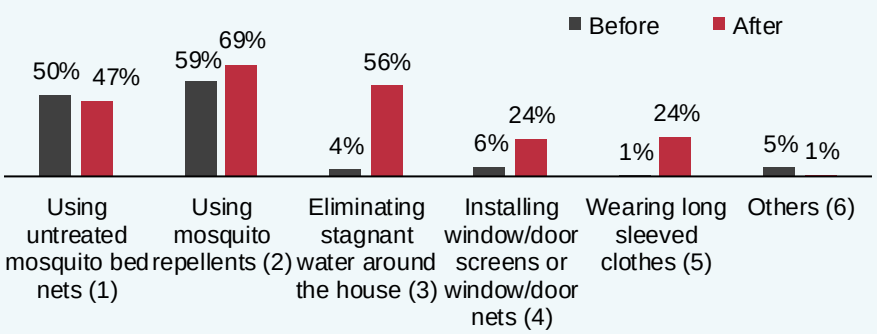
Increase in adoption of mosquito prevention methods within the sample

- There has been a substantial increase in elimination of stagnant water around the house, which is the primary cause of dengue mosquito breeding. Majority of respondents were encouraged by EMBED to take up these preventive measures.



Dengue Incidence and Testing

- Within our sample, only 7% respondents had cases of dengue in their homes. All of them got tested due to symptoms.
- Majority of respondents got tested (59%) and treated (66%) in private hospitals/clinics. This shows that efforts could be made to promote usage of government services for care.
- The role of ASHA workers increased post EMBED project by 31% for encouraging tests and by 9% for hospital referrals among respondents.
- Discussion with community members revealed that most respondents (60%) believe that dengue has declined in the city to some extent while 37% believe that it has declined to a great extent.

In 2014-15, nearly 3,500 people suffered from dengue, but in 2023, the number fell to just 15. Collaboration with EMBED strengthened our efforts to control the outbreak, particularly through regular larvae surveys, awareness initiatives and constant communication."

- Dr. Vinod Donepya, District Malaria Officer, Gwalior, Madhya Pradesh

Key Partnership with Government Stakeholders

The Centre for Health Research and Innovation (CHRI) in partnership with Godrej under the EMBED program has provided technical support, capacity building support and innovative strategy support to the Department for Vector-Borne Diseases of Government of Uttar Pradesh to significantly improve disease surveillance, outbreak management, and community engagement. It has supported the following,

- ✓ Real time surveillance systems
- ✓ Lab technicians training for enabling better diagnostics
- ✓ Development of structured module for training of ASHA workers by districts
- ✓ Operational support for outbreak control
- ✓ Strategy development support
- ✓ Logistic management support

Key Points to Ponder

The EMBED project has made significant strides in reducing the burden of malaria and dengue across targeted regions through well-structured interventions.

Intensive community engagements, improvements in testing, better disease surveillance and real time data sharing were key contributors to the project's success. Beneficiary feedback confirmed an increase in health awareness and adoption of preventive behaviours. Additionally, by empowering government healthcare workers through continuous training, the project laid the foundation for sustainable outcomes.

Although the program has achieved significant progress, addressing minor gaps in operational processes and encouraging beneficiaries to rely on government healthcare facilities will further enhance long-term outcomes.

Suggested Recommendations:

- Focus on malaria and dengue treatment follow up to limit disease spread
- Encourage usage of government healthcare centres to reduce out of pocket expenditures
- Provide state level support in other intervention states
- Develop feedback mechanism for standardized data collection application for disease surveillance
- Provision of entomologists in collaboration with state governments