

Changing Behaviors in Complex Settings



Improving the lives of communities through Digital Transformation
using Social & Behavior Change Communication strategies
based on the principles of Data Justice



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using Social & Behavior Change Communication strategies
based on the principles of Data Justice**

Hilmi Quraishi (Ashoka Fellow)

&

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Dedication

This book is dedicated to our dearest mother, ***Dr. Meraj Quraishi***, who has been a guiding light and a constant source of inspiration for us. She gave us the gift of dreams, courage to pursue them and ability to realize them. She never stopped believing in us. This book is a testament to the countless life lessons she taught us. We dedicate this book to her immeasurable love and support. Thank you Amma!

This book is also dedicated to all the communities across the world that tirelessly fight for social justice. It is dedicated to children who live in difficult circumstances but still dream to go to school, adolescent girls who experience gender-based violence but still strive to achieve equitable future, and women who inspite of limited opportunities available still exercise their socio-economic rights to have dignified livelihood. It is dedicated to all those who rise against adversities. It is to tell them that they are not alone!

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Foreword

I got to know the twin duo, **Hilmi & Subhi**, through their initiative on social & serious games that they have developed. I very much liked the idea of games which in itself is a game-changer. They were successful in embedding social messages in each of their games which were designed for the communities to change their behaviours by inculcating appropriate knowledge, attitudes and practices. In order to multiply their impact, they used existing tools like mobile phones, and introduced new and modern technologies to maximize it further. They not only co-designed digital tools with the communities but also co-designed new technologies that empower the communities to transform their behaviors. Another commendable achievement is that they have done this number of times - refining the tools and technologies every time, and making it more efficient thus creating a proven digital transformation model for others to take it up.

In the development sector, there is quite a colonial / neo-colonial approach towards the use of technology. ZMQ was able to overcome these barriers by using technology to create solutions from within the communities. The standard solutions that come from the North are non-adaptive to the circumstances of the South. It is fascinating to see how ZMQ innovations not only travel from South-to-South, which they have done successfully multiple times; but they also travel from South-to-North. Currently, the North is more complex than ever before. It is facing severe crises - climate change, pandemic, conflicts, immigration, systemic racism, democratic crisis etc. It is so comforting to see that the South seems to have the solutions to their problems based on indigenous knowledge and also working closely with the communities. ZMQ's approach to solve complex problems, both in the South and the North, is by building individual and collective urgencies before it gets into the crisis mode.

There In order to fight inequities, one has to use public goods as it benefits the masses. ZMQ, through its innovative technologies, is creating global public goods for the communities by interconnecting three categories - digital public goods as it develops social technologies, intellectual public goods as it uses innovative processes to transform ideas, and natural public goods as the solutions contribute to the cause of healthcare, education, bio-diversity, education, water etc. Historically, citizenship has been a very exclusive concept where local citizens can only benefit from the local public goods. With the use of technology, it is now time to serve global public goods and transform local citizens into what I call the 'Planetizens' or the citizens of the planet. This concept is inclusive by default as anyone born on this planet is a citizen of it. So we need to create planetary public goods by creating technologies to solve complex issues and serve both, local public goods and global public goods..

I see the concept of the book ***Changing Behaviour in Complex Settings*** as very futuristic to set up transformative models. The book will not only inspire other game-changers but will show a concrete path to those who are attempting to solve complex problems of humanity using technology.

François Taddei (Ashoka Fellow)

Chief Exploration Officer

Learning Planet Institute, Paris, France



@ Quentin Chevrier

Testimonials



Revi Sterling, Senior Technical Director, Digital Inclusion at CARE & Adjunct Professor, Columbia University, US

For decades, I have been a fan and advocate of ZMQ and their work. Since the early 2000s, much has changed in 'Digital Development' but ZMQ has only created better, more impactful programs and scaled their footprint to several countries. ZMQ is one of a few stalwart organizations who truly put participants and their values at the core of the design process. They are a hero in human centered programming. ZMQ's deep roots in Gandhian principles, adoption of proven strategies, and unwavering commitment to equitable digital inclusion are a model for everyone. I love partnering with ZMQ because it's such a thoughtful team of excellent humanitarians. Happy anniversary, ZMQ!



Dr. Stavia Turyahabwe, Assistant Commissioner, Tuberculosis Leprosy Control, Ministry of Health, Uganda

"Working with Hilmi & Subhi and the ZMQ team has resulted in adoption of digital adherence technologies for TB patients in Uganda. Their experience of working with underserved communities enabled them to have deep insights about different communities of Uganda. I am impressed by the way ZMQ implements TB solutions with full commitment and deep understanding of the communities. They took the challenge of designing digital TB tools in the local languages. I am convinced that their strategy in fighting TB in Uganda will contribute immensely in elimination of TB from Uganda. Our next steps focus on making the solution entirely integrated in Ugandan system for better scale up and usability. I congratulate the team on 25 years of improving the lives of communities through digital technologies! "



Margot Cooijmans, Senior Director, Philips Foundation & Philips Foundation Impact Investments BV, Netherlands

In honor of ZMQ's 25 year celebration I would like to extend my gratitude and appreciation for ZMQ's tireless pursuit of transforming rural communities in India through digitalization. Philips Foundation supported a two-year program 'Vishwaas (Breath of Hope), with an objective to prove low-cost innovative approaches for prevention, diagnosis and treatment of childhood pneumonia. Philips Foundation believes that through innovation, based on an in-depth knowledge of the local situation, access to quality healthcare can be provided which can improve lives of disadvantaged communities. The collaboration with ZMQ has been a great example of this conviction!

Evelyn Ashton-Griffiths, Head of Global Cooperation, British High Commission New Delhi, India

India continues to be a leader in thought and practice on inclusive low-cost innovations. ZMQ's work using low-cost technology from India on maternal and child health and TB projects has saved lives and livelihoods in Africa and South Asia. These small investments with big human impacts make us proud and passionate about the role that FCDO has been fortunate to play in enabling ZMQ's work with poor communities, as part of the UK's global development partnership with India.



Amera Khan, TB REACH Technical Officer, Innovation & Grants Team, Stop TB Partnership, Geneva

'Changing Behaviors in Complex Settings' is a practical resource for those looking to have a positive impact on communities through digital transformation and behavior change communication strategies. The book's focus on Data Justice principles sets a high standard for ethical practices in the field. Providing examples of how these principles can be applied in the field, this resource will be useful for those in the development and public health field.



Paula Gonzalez, Senior Manager, Sovereign & Private Sector Engagement, Donor Relations & Campaigns, GAVI, Geneva

Gavi, the Vaccine Alliance is proud to partner with ZMQ through an innovative solution designed by ZMQ to reach zero-dose children in urban slums of India. ZMQ is enabling its bold approach of working with transgender community by leveraging the power of digital storytelling to boost immunization rates and improve vaccine confidence. We wish ZMQ the best of success as they hit their 25th anniversary using advanced technologies and processes in mainstreaming communities and enabling development.



Radhika Shah, Co-Chair Breakthrough Alliance, United Nations Joint SDG Fund & Board member, Center for Effective Action, U.C. Berkeley, USA

I am deeply inspired by the role of ZMQ in advancing Agenda 2030 via inclusive digital innovation that 'Leaves No One Behind'; powerful storytelling that challenges gender norms; equitable, sustainable & decentralized models; and data justice. Founding brothers Hilmi & Subhi bring the Gandhian spirit into every aspect of ZMQ which is transforming access to health and education for the most marginalized in our world. As ZMQ celebrates its 25th year, I want to applaud its impact in improving and saving lives and advancing grass-roots agency by bringing the power of tech in the hands of rural women across Asia and Africa.

About the Co-Founders



Twin brothers, **Hilmi Quraishi** and **Subhi Quraishi**, are the co-founders of ZMQ, a global ‘Technology for Development’ social enterprise founded in 1998. With their schooling done in New Delhi, India; they completed their MS degrees in Computer Science from Russia and began their doctoral studies. But due to unfortunate demise of their father **Prof. Zaheer Masood Quraishi** (a Delhi University professor), both Hilmi and Subhi returned to India to embark upon a new journey. With staunch Gandhian values instilled by their father, they decided to continue their father’s vision of a just society and conceived the idea of an organization which can serve the under-privileged and marginalised, known today as **ZMQ**, after their father, as a tribute to him.

ZMQ co-founders were blessed with numerous opportunities. Since their childhood, both of them were inspired by the works of various social reformers and educators born in India in last two centuries, a few of the names are Raja Rammohan Roy, Ishwar Chand Vidyasagar, Sir Syed Ahmad Khan, Mahatma Gandhi, Vinoba Bhave and Sunderlal Bahuguna. The footprints of these social reformers left deep impression on the minds of the co-founders. Interestingly, the last two decades of the 20th Century witnessed two revolutions; the growth of IT industry, and later the Telecommunication revolution which led to evolution of Internet, increase in number of mobile phones and explosion of mobile data which had the potential to service delivery on a massive scale. Lastly, the first two decades of 21st century witnessed a phenomenal growth of social enterprises, which gave the co-founders opportunity to work across various sectors to address plethora of social problems using innovations.

Hilmi & Subhi have dedicated 25 years in enabling **Digital Transformation of Rural Communities** and have brought in a substantial systemic change in addressing critical social issues to improve the lives of rural, underserved and marginalized communities using digital technologies. They have created numerous people-centric models which are being used successfully across the globe. Along with their passionate ZMQ team, twin brothers have established more than 180 behaviour change campaigns and developed over 40 system-change solutions using digital strategies. Winners of several international awards like Digital Transformation Award 2018, UNESCO Digital Literacy Award 2017, Schwab Fellowship Finalist 2016 and UNDP World Business Award; they are prominent speakers on social technology forums and their works are regularly published in newspapers and magazines worldwide. Hilmi is also an Ashoka Fellow recognised for his technology based innovations for the world’s most urgent social problems. He has also been an Ashoka-Globalizer three times.

About ZMQ

Pioneer in **Digital Transformation of Rural Communities**, ZMQ was founded in 1998 in India to empower rural communities using technology by providing them timely information and connecting them with life-saving services, which often makes a difference between life and death. This concept was still very nascent then.

In its early phase, ZMQ studied numerous processes and systems related to development in the sectors of healthcare and education. All these systems were designed 40-50 years ago. And for years, these systems have been just 'top-down' manual models with a stringent observation/supervision approach, which always made these processes and solutions exclusive (non-inclusive). They worked in isolation and the target audiences were treated as mere beneficiaries. Maintaining a steadfast commitment to its mission, ZMQ was confident that the power of technology could bring in transformative change by substantially improving the accessibility, affordability and effectiveness of social programs. But it was realized that only embedding technology in these top-down models wouldn't be that effective.

ZMQ recognized that a 'Systems-Change' approach would be required to bring about significant and sustainable transformation within the complex systems. ZMQ conducted a comprehensive analysis of the existing systems, identified key areas where strategic interventions can be done to create substantial change and engaged with a diverse set of stakeholders who had influence in the system. With this learning, ZMQ started working on developing technology-linked community models by integrating communities as part of the solution thus making it an inclusive model, where the target audience became part of the solution as stakeholders. ZMQ referred to this approach as a 'bottom-up' technology model to empower communities and give them more control over the information and the services which they earlier never had. This is exactly what ZMQ dreamt of – establishing a decentralized model that distributes power and decision-making across various participants which finally influences the outcome of the system. This is why ZMQ is also referred to as a **Technology for Development** organization based on the 'Gandhian model'.

Today, in 2023, ZMQ is celebrating 25 years of its mission of 'Digital Transformation of Rural Communities'. Having worked in the field of 'Technology for Development' for these years, ZMQ has been successful in building equitable, inclusive and sustainable models using technology by designing, developing and implementing technology-led development models with a systems-change approach to improve the lives of rural and marginalized communities across the globe. In these years, ZMQ has accomplished over 180 behaviour change campaigns and developed over 40 system-change solutions, thus so far impacting over 220 million people across the globe.

As an organization from the Global South, ZMQ has a 'research and development' center in India, an implementation arm in Africa and an International non-profit organization in Montreal (Quebec) to replicate and scale its proven and tested models under South-South Cooperation in various low and middle income countries. Many of such models have already been implemented in countries like Uganda, Rwanda, Afghanistan, Ethiopia and Democratic Republic of Congo.

About the Book

This book ***Changing Behaviors in Complex Settings*** celebrates a remarkable milestone - 25 years of ZMQ's mission of 'Digital Transformation of Rural Communities'. The book takes its readers through ZMQ's 25 years of unwavering commitment to improve the lives of rural, underserved and marginalized communities; and promoting social justice by harnessing social innovations in complex settings. Complex settings refer to environments that are characterized by multiple interconnected factors and dynamics that influence the behavior and outcomes of individuals, communities and systems. Besides the settings with limited access to essential resources which lack adequate healthcare, education, sanitation, clean water and other basic services (called the low-resource settings); complex settings also include global health crises, climate emergency, urban/peri-urban environments and conflict zones. This book is divided into two parts.

The first part of this book is a ***Practitioner's Perspective*** based on the real-life experiences of the two co-founders. It shares insights and strategies that have been tested and proven effective in programs to foster positive behaviors. It is a testament to the challenges encountered, barriers overcome, success attained and lessons learned from the failures.

The second part of this book is a ***Compendium of Cases Studies*** based on 30 impactful cases studies from ZMQ's SBCC works over the last 25 years implemented in different geographies of the world – Asia, Africa, and Latin America. The diverse set of case studies with varied backgrounds, cultures and experiences gives more insight to effective problem-solving. The challenges and its mitigation approach addressed in different programs can be applicable to a diverse range of contexts and geographies. The intersectionality of social, economic and environmental factors in different programs can help in developing robust strategies that can be applied to future initiatives.

As co-authors of this book, we extend our thanks to the readers. We hope that by sharing our experiences; they will be inspired, encouraged, and equipped with the tools and knowledge required to embark on their own impactful journey of Social and Behavior Change Communication to empower rural, underserved and marginalized communities; and improve their lives.

ZMQ Mission

ZMQ's mission is to create an equitable and just society. This can be achieved by using SBCC (***Social & Behavior Change Communication***) strategies at the grass-roots which is a powerful tool for reducing inequities, creating inclusive communities and promoting social justice. SBCC ensures that communities have access to relevant information, crucial for making informed decisions. SBCC campaigns can challenge and transform social norms and practices that perpetuate inequities by highlighting positive role models; and sharing stories of change that can shift attitudes, beliefs, and behaviors towards more inclusive and just practices. SBCC also addresses systemic barriers that contribute to inequities by highlighting them, amplifying marginalized voices, and advocating for policy and systems change which results in improving lives of the communities. Also, ZMQ effectively uses SBCC approach for training and capacity building in various contexts which enhances participant's knowledge and skills. It involves participants in the learning process, enables track progress and enhances their learning and skills-building.

About YourStoryTeller

With years of research, development and practical implementation on the ground; ZMQ has come up with a robust SBCC tool-cum-strategy called YourStoryTeller (YST), a powerful data justice tool at the last-mile which collects small but authentic stories based on the lived experiences of the communities with their testimonials of successes and failures; and their strengths and challenges.

Dr. Ilmana Fasih is the Co-Founder of YourStoryTeller program. She is a medical doctor and worked as a healthcare professional with over 25 years of experience in clinical practice. She has been engaged with ZMQ for over 12 years as a Technical Advisor. She is also the Director of DEI (Diversity, Equity and Inclusion) at ZMQ Global.



Acknowledgements

On this special occasion, we extend deep appreciation to our incredible communities across the globe - those who have entrusted us with their stories, and found relief and hope through our services. Their resilience and courage inspire us to move forward, and their testimonies give us more strength and determination to make an even greater impact in the years to come.

With immense gratitude, we acknowledge the dedication and unwavering spirit of our staff, ground teams, stakeholders, partners, donors and supporters who have stood by our side throughout this remarkable journey. We also express our heartfelt gratitude towards our extended teams of volunteers, community health workers, midwives and health experts who have worked with us tirelessly to implement programs in different geographies. Through numerous initiatives, projects, and transformative actions; we have been able to improve the lives of millions of people. ZMQ's tireless efforts have helped bridge gaps, break barriers, and provide opportunities for those who need it the most. We also extend our gratitude to **Jasdev Singh** who is a Director at ZMQ. He has been engaged with ZMQ for more than 20 years and heads the user interface design team.



Lastly, we want to thank our families for their constant support, encouragement and understanding as we embarked on this journey. We especially want to acknowledge, Sabina (Hilmi's wife) and Sumbul (Subhi's wife), for their belief in us which has been our pillar of strength throughout.

As we reflect on the past 25 years, ZMQ celebrates the numerous milestones it has achieved - from pioneering innovative programs, collaborating with like-minded organizations and stakeholders to creating systems-change models. Our collective impact has been far-reaching and long-lasting.

As we move forward, let us continue to embrace the principles that have guided us thus far. Let us remain committed to upholding the dignity of every individual, fostering inclusivity, and addressing the systemic challenges that persists to create a more just and compassionate world.



Part I

Practitioner's Perspective

1.1. Global Challenges the World is Facing

The last few decades have seen some significant improvements in healthcare, especially in prevention and treatments. However, the current rate of progress is still insufficient to achieve Sustainable Development Goals (SDGs) of the United Nations, a universal call to action to create a more fair, just, and equitable world by 2030. COVID-19 further slowed down the pace of development and changed the trajectory of growth. More than 1.3 billion people are still living in poverty, the majority of them being women and children. Furthermore, we are seeing additional cases of Tuberculosis and Malaria. The widespread interruption of routine immunization programs has put more children at risk of contracting deadly but vaccine-preventable diseases. The recent outbreak of measles is one such example. On top of that, more people slid back into poverty. In general, more work is required on gender equity and for the rights of girls & women. Lastly, climate change in itself is a Herculean challenge that impacts every aspect of human existence. Climate change is not just about global warming, frequent floods or prolonged droughts. It is also having a devastating impact on food security, depletion of resources, climate migration and further worsening of poverty, thus increasing regional and global conflicts. Marginalized communities will be the worst cohorts affected by climate related calamities.

Digital connectivity and emerging technologies like IoTs and AI present new opportunities to advance community well-being. Although they introduce the risk of challenging the existing systems and approaches; the shift remains inevitable. With a population of 8 billion today, the world is facing many more challenges than ever before. The resources are already stretched to their limits. In the next 30 years, the population of many countries especially in sub-Saharan Africa, is projected to double. This will put additional pressure on already strained resources and existing challenges like lack of healthcare, illiteracy, poverty, climate vulnerabilities and numerous other inequalities. Digital technologies provide new opportunities of connecting with the last-mile communities, bringing a new solution design with a bottom-up approach. As disruptions and evolutions continue, governments, international agencies and civil societies must look into new digital strategies to mainstream and connect communities, and hence reduce disparities. We are sitting on a ticking time bomb. It is time we act now.

1.2. Digital Transformation - A Way Out

The last century, especially the previous 2-3 decades witnessed a paradigm shift in the development sector with the evolution of social entrepreneurship, the advent of digital technologies and the use of innovative approaches to solve social problems. Mobile technology offers an effective means of bringing sustainable solutions and services to people in the developing countries. With low-cost handsets and increasing



penetration of mobile phone networks globally, billions of people that never had regular access to computers or fixed-line homes, now use mobile devices as daily tools for communication and data transfer. Today there are more than 5.5 billion mobile users in the world and 83% of the adults in the developing countries have a mobile phone. This resource provides a new approach to design people-centric solutions with a bottom-up model. Communities, who were mere beneficiaries in the old model, are now key stakeholders in designing and driving their own change. It also gives them opportunities to implement and have a sense of ownership. Digital technology can not only transform, but empower economies too.

New technologies are transforming how communities and societies at large – to live, learn, work, and connect with one another. COVID-19, by default, accelerated digital transformation and demonstrated how digital tools could save the communities. The world must rapidly scale up to use new technologies to tackle most urgent global challenges and to realize a shared digital future. Countries, international organizations, companies, research communities, and civil society all have a role to play.

1.3. Data Justice – Making Communities Visible

With the growing digital transformation, in particular the data being generated through the use of technological devices and services, there has been an increase in the availability of digital data reflecting human and economic development. This data has enormous implications on how communities are seen and treated. Despite immense availability of digital data; the power of data to sort, categorize and intervene has not yet been explicitly connected to a social justice agenda. The current data revolution we see is just a technical one. There is a need to establish data justice which is based on the principles of visibility, engagement with technology and anti-discrimination. The production of digital data collectively informs fairness in the way communities are made visible, represented and treated.

Digital data has the innate capacity to provide equitable allocation of resources (distributive justice), by making marginalized communities visible. While working at the last-mile, ZMQ focuses on improving self-reliance, social justice, and participatory decision-making of the local communities. It uses the fundamental principles of data justice, that the data should make visible community-driven needs, challenges, and strengths; be representative of the community; and treat it in ways that promote self-determination of the communities. They are based on community-based participatory research which positions community members as experts as they already have the capacity to conduct systemic inquiry into their own lived experiences. When we build a world where everyone has the capacity to participate, we will also be able to find solutions that work for everyone.

Data Justice



1.4. Human Centric Design to Achieve Social & Behaviour Change

Behavior is a complex phenomenon influenced by multiple factors. Fifty years ago, the approach of community work was top-down, by delivering uniform awareness programs based on IEC (Inform, Educate & Communicate) with an aim to obtain behaviour change. It was then believed that that the right information would lead to right change. But the evidence has shown that the knowledge, awareness or attitudes do not always translate into actions or practices. Although, awareness is an important component to create a change, but there are many other factors that influence behaviour change. With time, the IEC approach evolved into a more robust social behaviour change (SBC) model. This approach is guided by a comprehensive ecological understanding that encompasses change at multiple levels - individual, societal (socio-economic), structural and environmental factors to create maximum influence in achieving desired behavioural results.

In the past two decades, Human-Centric Design has evolved to generate impactful programs that can address complex social problems. It is a bottom-up approach which stands in contrast to the existing top-down approach of creating interventions mainly based on the point of view of researchers, professionals or leadership in charge of the system. Local communities have a deeper understanding of their challenges and what they have been facing for years. As a powerful social tool, the Human-centric design leverages the knowledge and the innovations of the communities for whom the solution is being designed. SBC programs benefit from human-centric design as they naturally understand micro-level system which helps in gathering deep insights of the communities and their challenges. Human-Centric Design can definitely create better outputs in any SBC program as it not only increases the quality of behaviour change but also facilitates a higher sense of ownership among the communities, even if the programs comes to an end.

1.5. Applying Theories of Behavior Change in SBCC Interventions

Successful public health programs are based on in-depth understanding of health behaviors and the context in which they occur. It is important to comprehend relevant theories of behavior change to design effective interventions which lead to the improvement of health behaviours. The science and art of using health behavior theories reflect a combination of approaches, methods and strategies from social and health sciences, which are used for development, implementation and evaluation of health promotion interventions. Many social, cultural, and economic factors contribute to the development, maintenance, and change of health behavior patterns. A theory helps in presenting a systematic way of understanding events, behaviors and situations.



There are several theories and models which are used in public health interventions. No single theory or conceptual framework dominates research or practice in health promotion and education. Some of the most widely used theoretical models of health behaviour are Health Belief Model (HBM), Stages of Change (Trans-theoretical Model – TTM), Social Cognitive Theory (SCT) and Social Ecological Model.

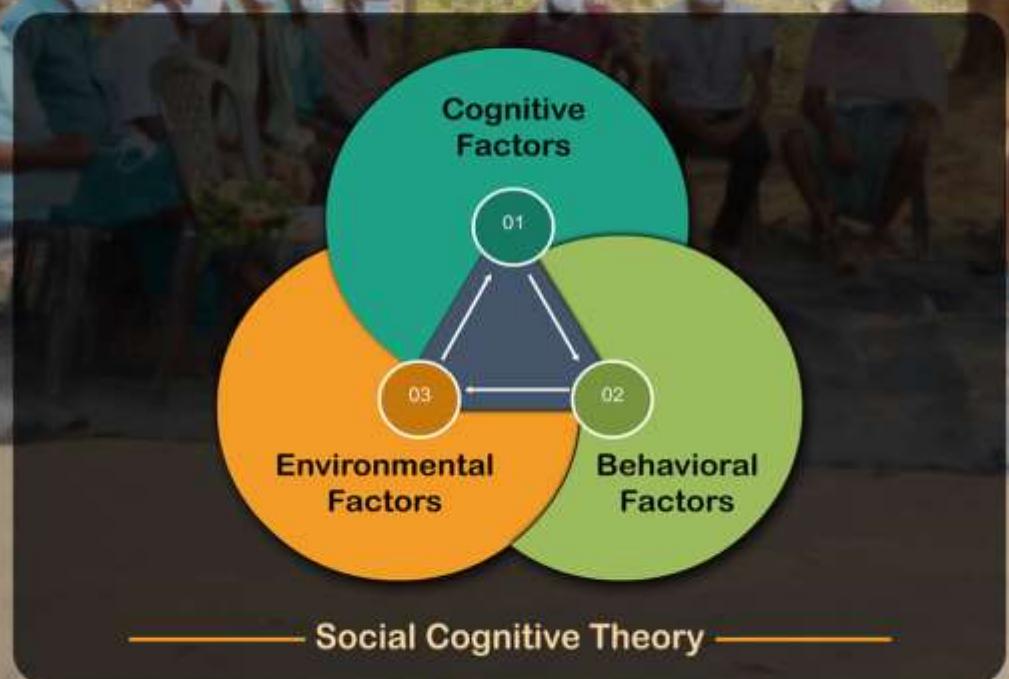
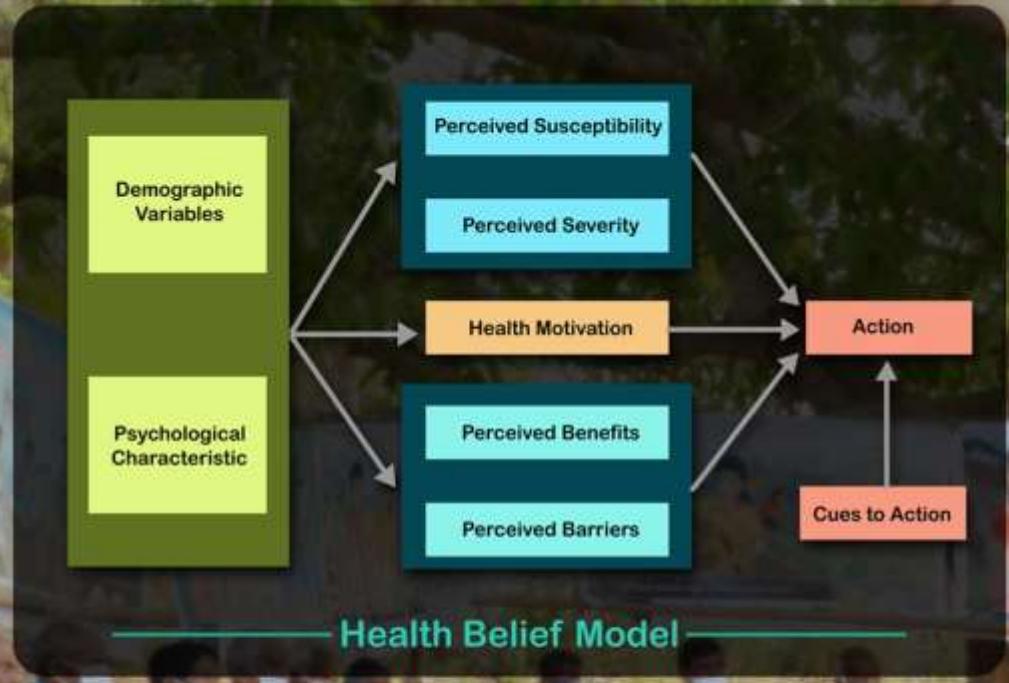
The Health Belief Model (HBM) is used to explain and predict health-related behaviors, particularly in regard to the uptake of health services. It has been evolved to address newer concerns in prevention as well as lifestyle behaviors such as sexual risk behaviors. It suggests that a stimulus must be present in order to trigger the health-promoting behavior.

The Stages of Change Model recognizes that people are at different stages of readiness to adopt healthful behaviors. Long-term changes in health behavior involve multiple actions and adaptations over time. Some people may not be ready to attempt changes, while others may have already begun implementing changes in their smoking, diet, activity levels, and so on.

The Social Cognitive Theory (SCT) emphasizes how human behavior is based on three factors - personal factors, environmental influences and behaviour, which continually interact with each other. It suggests that people learn not only through their own experiences, but also by observing the actions of others and the results of those actions. The model uses role models and reinforcements to promote healthy behaviors.

The Social Ecological Model provides guidance for developing successful programs through social environments. It emphasizes on multiple levels of influence such as individual, family, community and structural. It suggests that creating an environment conducive to change makes it easier to adopt healthy behaviors. Effective intervention should develop messages and activities that influence all four levels of this model, maximizing facilitators and limiting barriers.

The choice of a suitable theory should begin with identifying the problem, goal, and units of practice, not with selecting a theoretical framework because it is intriguing or familiar. One should start with a logic model of the problem and work backwards to identify potential solutions. As each theory has its unique contribution, impactful interventions are built by combining multiple theories. ZMQ takes inspiration from different behavioral change and communication theories, which plays an essential role in developing strong and sustainable interventions. But still the core of any intervention lies in understanding the target audience well. There is absolutely no substitute to it.



1.6. Setting Goals to Achieve Practical Change

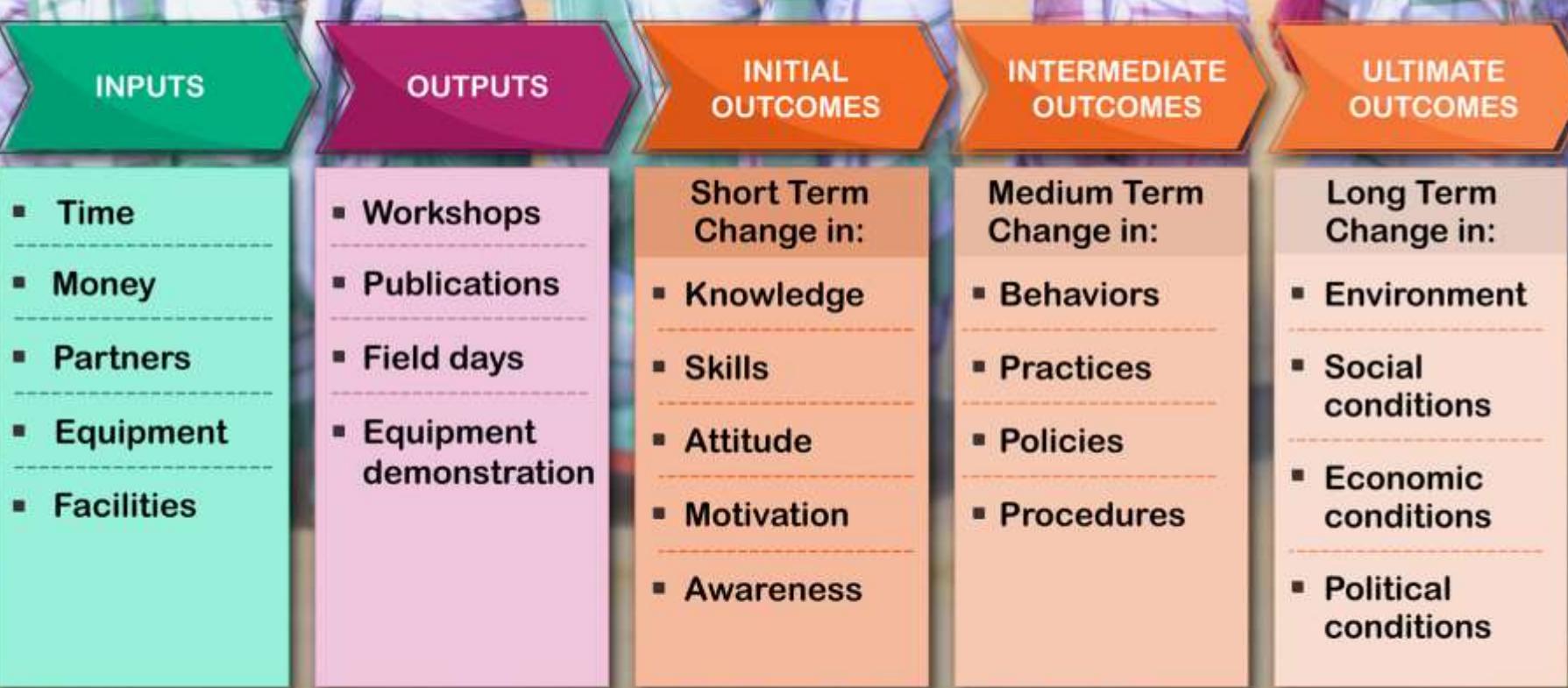
While setting up a SBCC program, it is important to develop a planning tool, often referred as Logic model, which explains the thinking behind the program design and demonstrates how specific program activities can lead to desired results. The objective of any SBCC program is to identify a specific health behavior for change, set goals, establish achievable plan and perform self-monitoring. This change can be measured over time through indicators which are used create targets, track changes over time and measure results at the end of the program. A program may use many indicators to assess different types and levels of change that result from the intervention like changes in health knowledge, attitudes and behaviors among the target audience. Indicators fall in three stages: Input - resources and contributions that go into a program; Output - activities and products that reach target audience and Outcome - results or changes that happens for target audience. Input and Output are the monitoring or process indicators that provide information about the scope and quality of activities implemented whereas Outcome are the evaluation or performance indicators that measure the change towards progress of results. An effective way to develop high quality indicators is to use the SMART criteria which are based on indicators to be specific, measurable, attainable, relevant and time-bound.

Serving as a point of comparison, a reference point (baseline) is established in a program to recognize the knowledge, attitudes and behaviors of the target audience before the implementation of the program. In order to define the end destination of the program, a target point (endline) is also established to determine what changes need to be seen in the program to reflect progress. Realistic targets are set by considering the baseline data; and additionally by conducting focus group discussions, reviewing latest researches and identifying relevant information on similar programs implemented under comparable conditions. In order to track the progress of a SBCC program, it is important to determine how often data should be collected. The frequency of collecting data is mostly dependent on the cost and length of the program. At least, one round of data collection should occur between the baseline and the endline, which is referred as mid-line.

By setting clear expectations from a SBCC program, one can create a solid foundation for successful behavior change. Some of the factors that determine the success of a SBCC program are developing clear and persuasive messages, using appropriate behavioral theories to strengthen the messages, creating visually appealing communication materials, identifying communication channels, conducting community engagement sessions, establishing partnerships with relevant stakeholders, allocating adequate budgets, developing timelines and adapting through the program. This all has been discussed in this book at different places. But setting up proper indicators are crucial to the success of any SBCC program as they help in tracking the progress, identifying the problems and addressing them in a timely manner to improve the program; thus ensuring better results in achieving practical change.



HEALTH GOALS



External Influences, Environmental, Related Programs

1.7. Achieving Sustainable Behaviour Change using Digital Strategies

Behaviour change is not just limited to social, cultural or economic realities, but the very physical space, the landscape, the natural environment and even the technologies around the people influences it too. Digital technologies enable a deeper insight into socio-economic issues and challenges of the communities, thereby making human centric solutions easier to implement. Mobile phones, have not only given an opportunity to improve accessibility, affordability and effectiveness of social programs, but have opened a two-way interactive process that enables communities to participate in shaping their decisions that impact their lives. It strengthens the voice of the communities; hence enabling them to sustain positive behaviour outcomes.

ZMQ has been developing Social and Behaviour Change Communication (SBCC) strategies and tools for the last 25 years. These strategies and tools are adaptable, replicable and scalable to a variety of social issues and geographies with wide demographical contexts. They are developed and disseminated in the regional languages keeping intact the cultural context and sensitivities of the communities where it is being implemented.

ZMQ uses people-centric approach while using dC4D (digital Communication for Development). It uses variety of communication tools and strategies which can be easily consumed by the communities with an aim to create awareness, build knowledge, change behaviours, demand generation and develop skills. Some of the strategies are as described in the next few chapters.

1.8. Variety of Digital Communication Strategies

ZMQ develops variety of digital tools combined with different communication strategies to deliver powerful solutions for social and behavior change communication. Some of them are mentioned below.

Digital Storytelling:

ZMQ effectively uses digital story-telling to address various social issues of the communities. There are two different styles of story-telling. The first approach is a linear-story telling which directly addresses the social issues as a sequential story using localized voice-over and animation. It is a preferred approach for low-literate communities as it is easy to navigate. The other approach is a decision-tree strategy which presents



multiple scenarios to a social issue for user exploration. Each scenario has an alternate course of action with its possible consequences. This approach enables the users to learn from their decisions and its outcomes, thus inculcating sustainable behavior change. In this approach, the story has different endings which enable the users to understand the consequence of each of their actions.

Role-Play based Interactive Games:

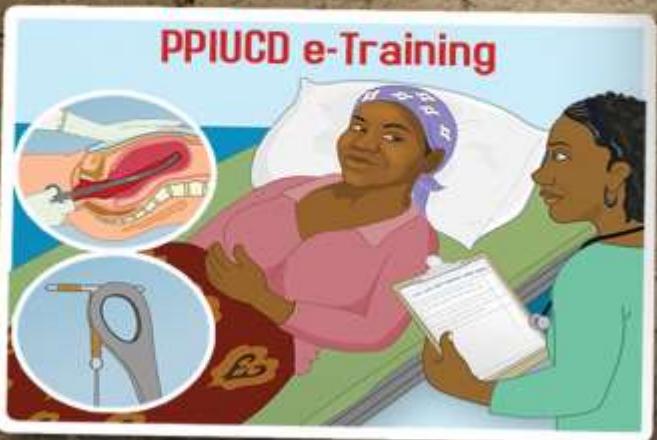
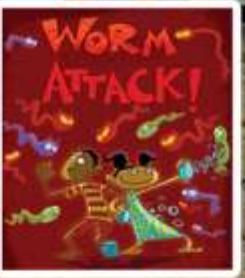
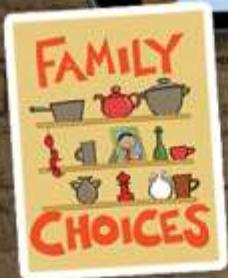
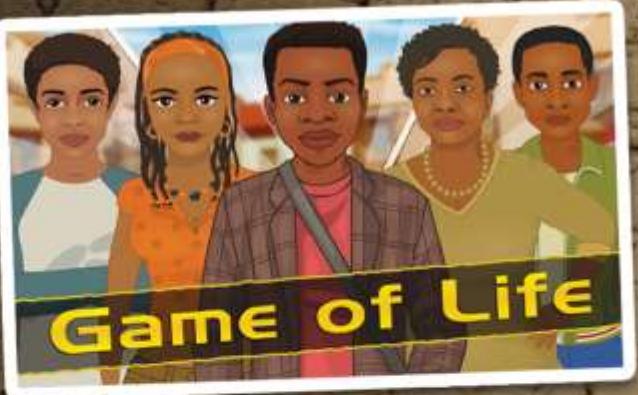
ZMQ effectively uses role-play based games as a successful way to create behavior change. Using this approach, various real-life situations are embedded with challenges that reflect the user's true environment. Users are put in testing relationships and face challenges to solve the problems. Studies have shown that humans adopt many of their values and behaviors from their role models. ZMQ has been intensively studying behavioral patterns of its previous games, at the same time releasing new genres of games to have a better understanding of the behavioral patterns. One common thing that has been observed among all these games has been the interaction with various real-world scenarios in a risk-free gaming environment. ZMQ has named this strategy as 'Real World Risk Reduction' model in a virtual environment.

Edutainment based mTraining Tools:

ZMQ successfully uses edutainment (educational-entertainment) as a strategy to address critical social and behavioral issues. This approach is a proven mass media instrument which has demonstrated a unique capacity for raising awareness among large numbers of people and motivating them to adopt new behaviors. It is also used for capacity building and training. The tools are usually interactive with a pre-test and a post-test to gauge the change in knowledge, attitude and practices of the users. At times interactive-animated films are also used for training and awareness generation. The presentation of the tools is based on ZMQ's Edutainment strategy, pioneered by Sabido, a Mexican television director who used Entertainment-Education to yield behavior change.

IoT based Toys and Wearables:

ZMQ uses Internet of Things (IoT) based tools to disseminate social messages to the communities. Customized information is disseminated based on user profile and needs. These tools also collect data from the communities. ZMQ has successfully used IoT-based Toys for health communication like immunization schedules, pre-natal care and other diseases. Some successful examples are that of Mama Toys and Tika Toys used in MIRA programs in India, Uganda and Afghanistan. ZMQ also uses wearables to promote health & wellness using devices and applications like health monitors, fitness trackers and analysis aids which are adapted for continuous sensing and providing feedback. The data generated from wearables act, both as motivating factor as well as social influencer, in adoption of new and healthy behaviors.



1.9. Multifaceted Implementation Approach using Digital Strategies

Successful social programs have a multifaceted implementation approach. It is important to identify all the possible resources available such as teams, communities, digital tools and IEC material. A strong program team in place, from lead coordinator to community coordinators, community mobilizers and trainers, is a key to success. The multifaceted implementation strategy comprises of different activities such as baseline survey, community meetings, workshops, focused-group discussions, trainings, community mobilization, door-to-door activities, engagement with various stakeholders, end-line, evaluation strategy, etc. They may differ from program to program.

ZMQ uses a mixed approach of dissemination with both digital campaigns and non-digital campaigns running alongside. The digital tools are comprised of digital stories, role-play game, m-Training toolkits and even IoT based toys. For non-digital promotions, a lot of print materials such as banners, posters, pamphlets and even bill boards are developed. As the majority of beneficiaries are low-literate, it becomes inevitable to meet the communities face-to-face to do dissemination. We try to identify as many groups or human networks as possible, and reach out to them physically. For instance, while working on SRHR; workshops are conducted in schools, CBOs, youth clubs, hostels etc. and even in orphanages, salons and bars. In all these workshops, both non-digital and digital campaigns are conducted. Our programs also identify points of high footfall such as bus-stand, local market, village fairs, medical camps and more to engage with as many community members as possible. In such scenarios, customized booths and kiosks are setup where print material is promoted and digital tools are also disseminated.

One of the most effective ways of targeted intervention using digital tools is through house-to-house visits conducted by community mobilizers who disseminate the tools with the communities. The group mode of dissemination is another way of targeted intervention where digital tools are disseminated through workshops. One of the impactful innovations in low resource settings conducted by ZMQ in a group mode is called MIRA Theatre. MIRA Theatre is a grass-root cinema with a thematically designed canopy and a TV screen backed with solar power. Digital stories and m-Training programs are screened through MIRA theatre which is set up at different locations across the village for mass awareness, promotions and trainings. 3-4 MIRA Theatre shows are held every day where community members are invited to see the digital content. This method has been highly effective for mass dissemination and awareness, which is followed by a discussion group. MIRA Theatre is also used as smart classes. Digital tools can also be made available through the App store and YouTube; and can also be downloaded through a QR code.

We also use traditional ways of dissemination such as Auto-Campaigns where a thematically designed promotion is conducted using a moveable vehicle (auto or truck) playing audio messages; Street Plays where professional troupes perform street plays by converting digital stories into street plays; and Radio Campaigns where radio programs are broadcasted by converting digital stories into audio stories followed

MIRA Theatre

MIRA CHAMBERS

MIRA Theatre



powered by
Edufoundation

ZM
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by a discussion with subject experts. There are other ways of dissemination such as meetings with stakeholders and aggregators; as well as aligning with existing programs to increase the reach and spread the message further.

1.10. Identifying Grass-root Social Engineers in Influencing Behaviour

Last-mile implementation has its own challenges which are related to social, cultural or economic factors. The community groups maybe low literate, under-privileged, marginalized, poor, tribal, hard to reach etc. Many of them may have been historically excluded which includes those marginalized by factors like race, caste, religion, sexual orientation, wealth and immigration status. Plus, there can definitely be an intersection of multiple factors. While such groups may be living under extreme conditions, influencing them and creating a change can be very challenging. While designing any social behaviour change intervention, it is important to determine which groups are marginalized, why are they marginalized, and develop an understanding of their landscape. It is also useful to study their prior experience, if any, in engaging with the local governments and /or with any other social programs.

It is very important to understand the power of trusted social engineers - community leaders, influencers, faith-leaders or champions, who can help in building the relationship with the community. They can indeed strengthen the impact of social programs. The role of a community leader is not to fix all the problems of the community but rather to work together with the community members, mobilize them, facilitate the problem-solving and decision-making processes, and innovate to benefit the community itself. Depending from situation to situation the social engineers or influencers may belong to the same group or from different strata of society. Some of the social engineers are faith-leaders (like religious heads), traditional healers (like quacks), educators (like teachers), health providers (like community health workers) and champions (young girls as influencers). There can also be two marginalized groups within a community setting, if used strategically; one of them can work as a powerful social engineer influencing the other group. One of the classic examples is engaging with the transgender community (eunuch or hijras) who are themselves vulnerable in order to influence immunization among other vulnerable and hard-to-reach communities in urban slums and peri-urban settings in Mumbai-Karachi of Maharashtra state in India. It makes it an inclusive model.



1.11. Data Analytics and User Behavior

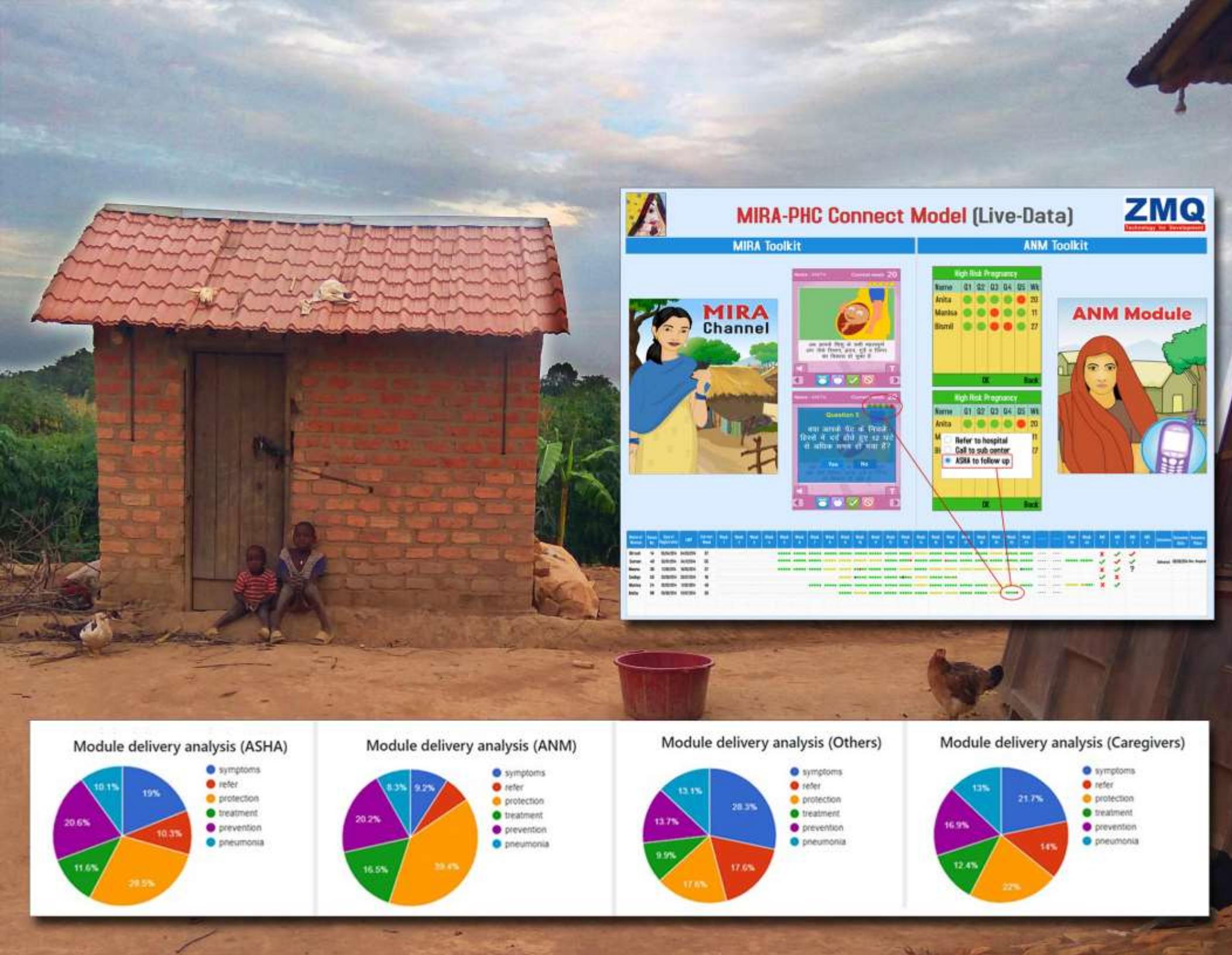
One of the main objectives of any social and behavior change program is to collect and utilize real-time data to make informed decisions. Digital communication strategies give an opportunity to measure efficacy of its tools, user behaviors and its outcomes. ZMQ integrates scientific methods in SBCC tools to measure effectiveness and impact of the overall SBCC campaign. Knowledge, Attitude & Practices (KAP) of users is captured through these tools, which tells what people know about certain things, how they feel about them and how they behave respectively. Understanding KAP level enables us to design a more efficient process of awareness creation and capacity building through customized performance tools appropriate for community needs.

Every ‘in-game’ activity provides a scope of embedding measurable footprints (tracker points) to track behaviors. A sophisticated database records data such as user profiles, interaction with different scenarios, decisions taken, influencing factors, consequences of actions, feedback received and points scored. These data points help to assess knowledge gaps, risks taken, behavioral patterns, beliefs and practices that need to be changed to inculcate positive behaviors. Based on the user data, there is also an opportunity to provide customized pathways to different users to adopt healthy behaviors. Another efficient method adopted by ZMQ to measure change in knowledge, attitude and practice is by conducting pre-tests and post-tests, embedded within the digital tools, often referred to as virtual behavior change.

1.12. Long-term Impact, Evidence-based Practice and Research

ZMQ’s SBCC digital tools work at the last-mile by examining a problem with system-change approach, thus uncovering why a problem is a problem, what the symptoms are, what their root causes are and how they can be solved. Such an approach helps in building long-term sustainable impact. Long-term impact helps in creating Evidence-based practice which helps in preventing unsafe practices and inefficient approaches. This involves innovation in terms of finding and translating the best evidence into a practice; thus improving the quality of service.

There is a challenge in the implementation of the best practices as there is always a gap between practice and research which is primarily required to develop new knowledge. Using SBCC campaigns, we conduct evaluations and do research by using quality data to demonstrate the effectiveness of the programs. Most of the SBCC campaigns aim to improve knowledge and change attitudes to inculcate behaviour change. These campaigns have been proven successful in promoting healthy or safe behaviours as well as reducing unhealthy attitudes and behaviours. In the case studies section, one can find numerous examples of programs integrated with ZMQ’s SBCC tools and their success in terms of reach, impact, evidenced-based practices and research.



1.13. Communities from the Global South as Researchers

Development research plays an important role in identifying the priorities of development, assessing the barriers to implementation, providing evidence to measure progress and improving the effectiveness of policies; thus making social development more effective. Most of the researches funded and published are carried out by researchers from the Global North, even when they focus on a country in the Global South. Despite the deeper local knowledge and real-time experience of researchers from the Global South and other local researchers, they are often under-represented. This undermines the potential of research to transform development practices into an impact. Other disparities like that of gender and ethnicity also exist in development research as women, minority groups and remote communities are often under-represented. This stands true even for many researchers of the Global South whose research quality tend to privilege certain forms of knowledge which excludes that of local groups, minorities and indigenous communities.

Local researchers have a deeper understanding of on-ground realities and their complexities. They are more likely to create change in a sustained manner and generate evidence-based policy making. It has been evidenced that if the measure of research quality includes research impact, then the outcome of the local researchers will be more effective in terms of innovation and affecting policy change.

Development research will benefit from creating equal opportunities for the local researchers, providing them with resources and leveraging their on-ground knowledge. Many funders have successfully developed programmes of research based on North-South partnerships, which have the potential to strengthen Southern researches based on principles of equity as a forward looking approach to decolonise and localise research. One of the new approaches that has drastically changed the landscape of global development is the growing South-South Cooperation where the countries of the south engage in collaborative learning models to share innovative, adaptable and cost-efficient solutions to address their development challenges. This new way of doing things is not only limited to emerging actors of the south but it also includes traditional donors willing to engage in Triangular Cooperation by directly supporting South-South Cooperation. Importantly, it is not only the researchers from the Global South that should be brought at the forefront, it is also time for the communities and the local groups, especially the stigmatized and discriminated like women, youth, minority groups, and indigenous communities, to be leading the research.



1.14. ZMQ's Digital Transformation Model

ZMQ's last-mile digital transformation model is based on a four-stage holistic framework - Design stage, Development stage, Implementation stage and Continuation stage based on the principles of data justice. This framework promotes in-depth engagement with communities and helps in developing solutions together with their participation thus making it more sustainable with ownership of the community. As the solutions are tested and implemented on the ground, at times, there is a need to tweak solutions to adjust to the new requirements based on localized dynamics or which may have arisen due to unforeseen circumstances. This is taken care by the progressive innovation model which guides to adapt the solution or sometimes even creates a new innovation which is added to the existing solution. This makes the whole model very dynamic and flexible.

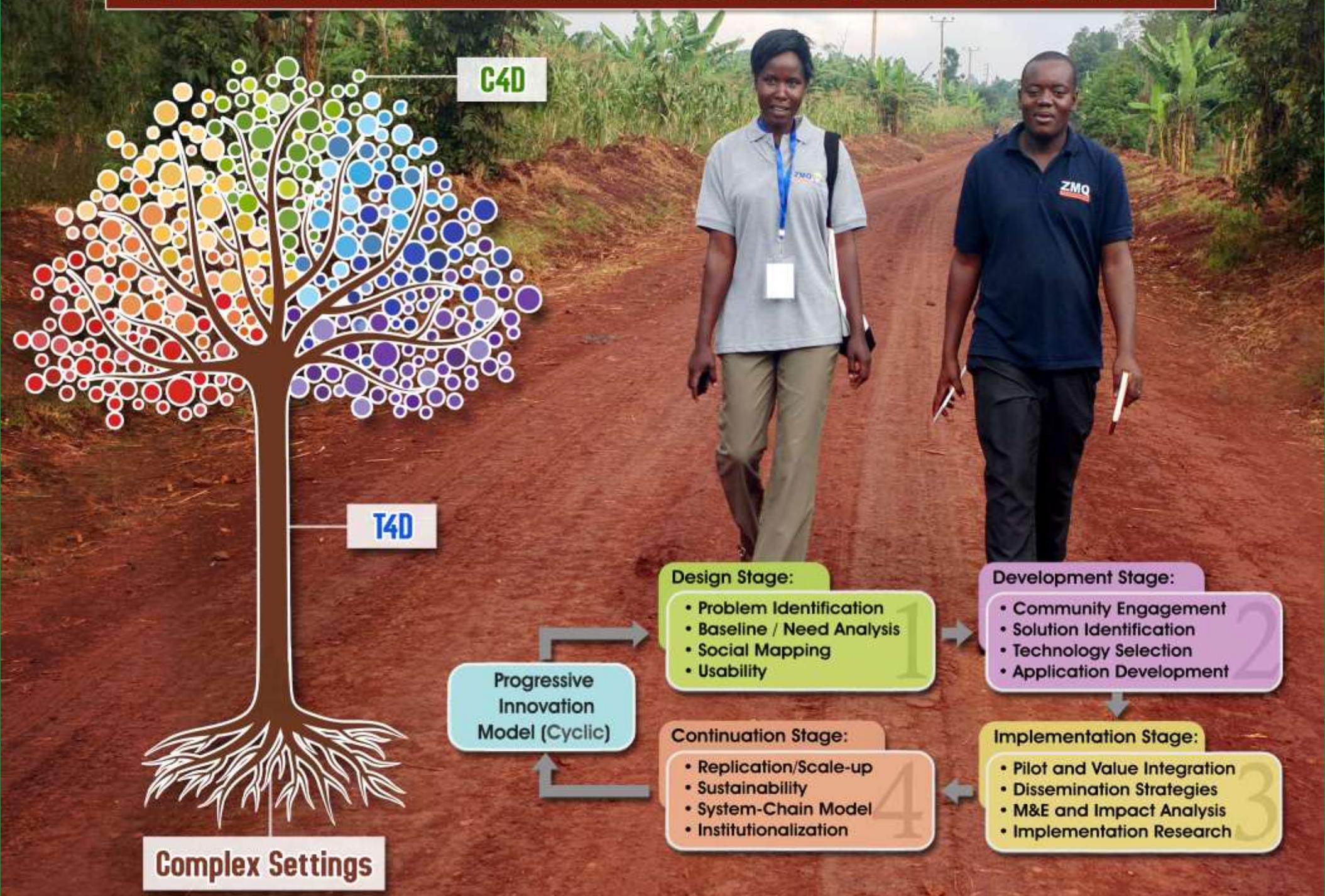
In terms of digital solutions, ZMQ uses two broad approaches. The first and the larger approach is a digital infrastructural or T4D solution which digitally connects all the players in the entire ecosystem. For instance, MIRA Channel is a T4D health solution on maternal and child health which connects the district hospital, referral hospitals, all lower ranking health facilities along with midwives, community health workers, coordinators and the last-mile communities with each other. The T4D solution works as a backbone of the MIRA (or programs) program where all the activities can be tracked through a robust dashboard.

The smaller but more focused approach is a digital tool or C4D solution which is comprised of specific digital toolkits for delivery of content. For instance, they can be targeted Social & Behavior Change tools such as digital stories, interactive games, m-Training tool and IoT-based devices and wearables which are delivered to the communities. C4D solutions help in inculcating behavior change by capturing the Knowledge, Attitudes and Practices (KAP) of the users which informs the program what people know about certain things, how they feel about them and how they behave. They have their own scoreboards. A blend of the two approaches of technology solutions - T4D and C4D, make the program transparent and highly measurable with discreet monitoring and evaluation.

1.15. Scaling Deep - Challenging Social Norms using Storytelling

Social entrepreneurs and innovators solving complex health, social or environmental challenges often hope that their new approaches can be scaled to a larger level to produce greater impact. In reality, scaling is a far more complex process, and can be harder and more demanding than the innovation itself. Numerous social innovations have proven their worth but haven't moved beyond the experimental stages, thus have limited impact. There are different dimensions to scaling social innovations and each creates different impacts. The first form of scaling is 'Scaling-Out' which involves the expansion of an innovation, its replication and its adaptation in different contexts. Such a scale increases the

ZMQ's Last-Mile Digital Transformation Model with a Systems-Change approach



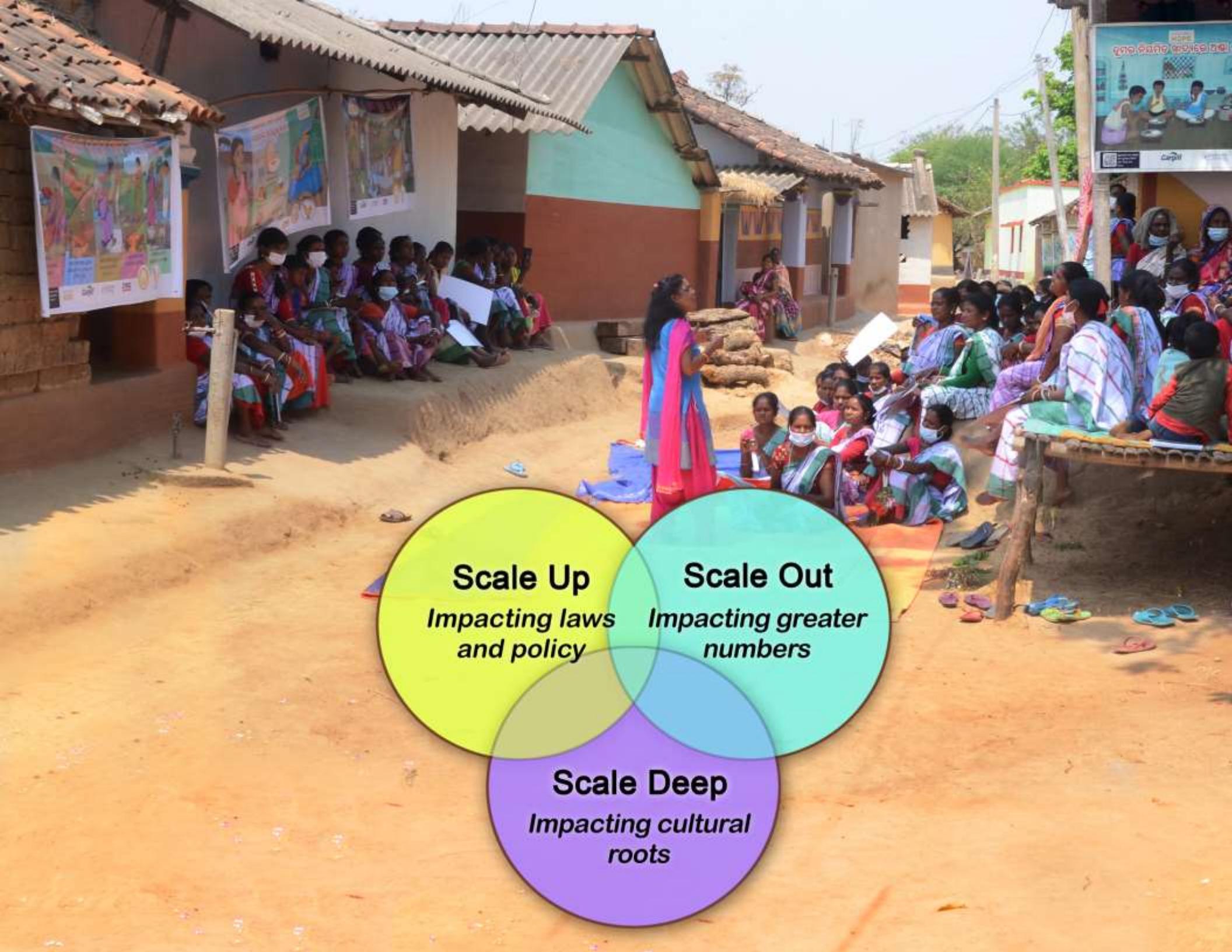
number of communities, geographies or organizations replicating the intervention thus resulting in the increase of the number of beneficiaries. Another form of scale is 'Scaling-Up' where innovation influences change in institutional policies, regulations and laws, which enable the performance and expansion of that innovation.

Social innovators working in the field of social and behavior change communication often challenge the existing social norms. For them, the route to a greater and sustainable impact is achieved only by transforming the hearts and minds of communities, their values and cultural practices, and the quality of the relationships they have. Such a scale is called 'Scaling-Deep' which influences cultural attributes such as norms, beliefs and values required for the innovation to thrive. Evidence shows that storytelling plays a significant role in changing social norms and impacting cultural roots. It is an effective tool to impact the knowledge, attitudes and practices of the audiences and has the power to create empathy, challenge stereotypes, promote understanding, inspire action and create cultural change, thus transforming social norms and values. Although there is no exact formula to create a larger systems-change, it is necessary to involve a combination of all the three types of scale - impacting greater numbers, impacting law & policy change, and most importantly, impacting cultural roots to make the change sustainable.

1.16. YourStoryTeller - Holistic Community-based Model for SBCC and Powerful Data Justice Tool

For 25 years now, ZMQ has been working on various digital SBCC tools and strategies. One such robust tool-cum-strategy is called YourStoryTeller (YST), which ZMQ is honoured to have produced after years of research and development. The foundation of YST is based on the lived experiences of the communities with their stories and their testimonials of successes and failures; and their strengths and challenges. In short, the stories produced are the stories of the communities, by the communities and for the communities. In the last 10 years, YST has been re-visited several times and has been adapted to make it a universally applicable model which carries innovation at two ends - product innovation as well as the process innovation. It has a potential to get embedded in any social program. Infact, YST is a starting point for any social program, which helps to understand the ground realities and strategize to develop the program.

YourStoryTeller (YST) is a very powerful data justice tool at the last-mile, which works at the grass-roots level and collects small but authentic stories of the communities. The world is not made of atoms, but it's made of stories. In fact, it is these small stories which make the big data. YST centralizes community voices, challenges, strengths and leadership in an effort to facilitate genuine and lasting social change. It captures the knowledge and lived experiences of the communities and counters dominant cultural narratives which are more focused on deficit models



Scale Up

*Impacting laws
and policy*

Scale Out

*Impacting greater
numbers*

Scale Deep

*Impacting cultural
roots*

rather than strengths-based models. It redresses the ways of collecting and disseminating data which earlier ignored the contribution of the marginalized communities.

1.17. YST Model – A Three Pronged Approach

YST uses a three-phased strategy - Design, Digitize and Disseminate. With well-defined outcomes, the YST has a robust monitoring and evaluation system which helps in impact assessment. The three phases are well defined and described below.

Phase I: Design Stage - Community-Level Workshops (Labs)

The first phase of the model is Design, where community-level workshops and community-engagement programs are conducted such as interviews, workshops, focused group discussions and community consultations with the beneficiaries. The design stage is based on the participatory decision-making of the local communities by sharing their lived experiences. It is also in this phase, that the story-boards are designed. This is the stage where key performance indicators (KPIs) are set in place if needed.

Phase II: Digitize Stage - Story Development

The second phase of the model is Digitize, where storyboards are converted into digital stories. It includes developing characters, backgrounds, graphic design, animations, writing dialogues, translations, audio recording and visual effects etc. The stories are developed using local resources, artists, designers and voice-over from the community. Here the stories are developed for various technological platforms like videos to YouTube and various mobile platforms. This is the stage where pre-assessment and post-assessment is set in place and data tracking is built in the tool for monitoring and evaluation (M&E).

Phase III: Disseminate Stage – Story-telling Workshops (Clubs)

The third phase of the model is Disseminate, where the digital stories are disseminated through various modes like story-telling workshops and clubs. The objective of this phase is to communicate real-time stories and testimonials. The dissemination of stories is done for communities themselves to understand their problems and find solutions. It is also used as a cross-learning tool for other communities to explore new ideas to solve their problems. As they are social justice stories with authentic data, the stories can also be used by policy-makers and researchers.



Design

- Conduct workshop with communities and participants
- Train the group on art of story-telling using hands-on session
- Create stories on the drawing sheets

Digitize

- Generate assets for digital stories like graphics, audio and text
- Publish stories using YST authoring platform
- Promote stories through social media

Disseminate

- Disseminate stories with communities and beneficiaries
- Conduct focus group discussions with communities on critical issues
- Evaluate impact by capturing Knowledge, Attitude & Practice

The stories are also disseminated through social media platforms such as YouTube and other mobile platforms - Android and iOS for mass reach. Various social mobilization strategies have also been developed for community dissemination. Some of them are like poster campaign with posters, banners & comic strips; community radio; settings up booths & kiosks in the communities; MIRA theatre (rural cinema) and community classrooms like with SHGs (Self-Help Groups), etc. In the last so many years, ZMQ has tested over 25 different effective strategies which have rendered impactful results. This is also the stage where KAP (Knowledge, Attitude and Practices) of the users are captured.

1.18. Integration of YST with other Programs

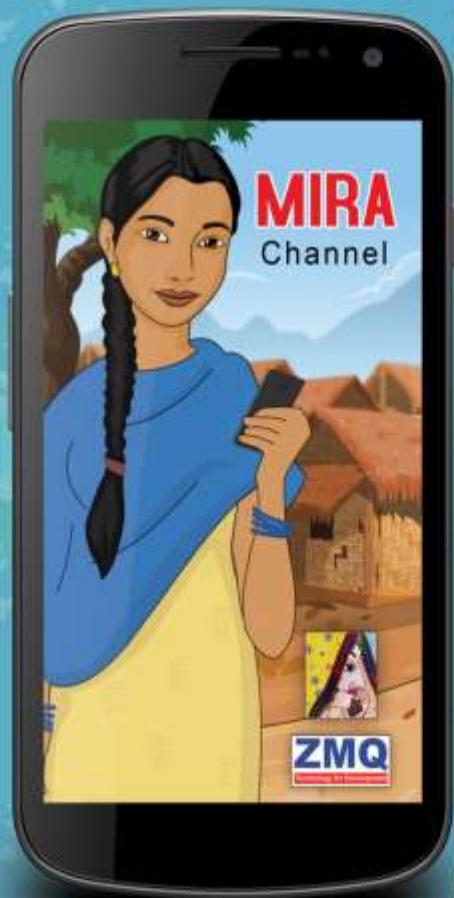
One of the biggest strengths of YST is its seamless integration in different social programs – existing or new. Social development programs require understanding of the ground, the communities, their cultural sensitivities and their challenges. YST is an ideal strategy to get the best from the ground to understand communities, their needs and finding solutions to their problems. YST can be used for multiple purposes; from creating awareness, inculcating behaviour change, campaigns, demand generation, capacity building, skills training, and strengthening participation to problem solving; with a core objective of building social justice. YST can be applicable in almost all of the domains like public health, education, livelihood, climate change, biodiversity, agriculture, sustainable development, human rights, diversity & inclusion.

ZMQ works closely with various International Agencies, Governments, Donors, NGOs, Corporates (CSRs) to integrate YST into their social programs. Such collaborations create a channel approach at the last-mile by binding all other components of the program together. Further, it helps in strengthening their programs and creates sustainable impact.

At the ground level, ZMQ works in closely with communities, their champions and other grass-root networks like community health workers, SHGs, FPOs, CBOs, collectives, village committees, local schools, community radio stations, aggregators, mobile operators and mobile recharge. Based on specific program requirements, the YST team is comprised of a diverse and experienced team of experts like communication for development professionals, behavioral scientists, public health experts, environmental specialists, human right champions, gender experts, trainers, educators, linguists, researchers and implementers to create a long-term sustainable impact.

YST Integration

Program with YST



Community Level Dissemination



Single Mode

Name of the woman	Story 1			Story 2			Story 3			Story 4			Story 5		
	Delivered	Pre	Post												
Suman	✓	5	10	✓	10	20	✓	10	10	✗	*	*	✗	*	*
Meena	✓	5	10	✓	10	20	✓	10	15	✗	*	*	✗	*	*
Sujata	✗	*	*	✓	15	25	✗	*	*	*	*	*	*	*	*
Ahshan	✓	10	10	✗	*	*	✓	10	10	✓	10	15	*	*	*
Ankhi	✓	5	10	✗	*	*	✓	*	*	✓	10	15	*	*	*
Total stories delivered per session	5	25	40	4	35	40	4	25	35	3	10	10	4	20	30

Group Mode

Name of the group	No. of participants	Story 1			Story 2			Story 3			Story 4			Story 5		
		Delivered	Pre	Post												
Group 1	5	✓	5	10	✓	10	20	✓	5	5	✓	10	10	✓	10	10
Group 2	6	✓	6	12	✓	12	24	✓	6	6	✓	12	12	✓	12	12
Group 3	4	✓	4	8	✓	8	16	✓	4	4	✓	8	8	✓	8	8
Group 4	4	✗	*	*	✓	*	*	✓	1	10	✗	*	*	✓	*	*
Group 5	5	✓	5	10	✓	10	20	✓	5	5	✓	10	10	✓	10	10
Total participants/stories delivered	24	4	30	50	3	20	30	3	20	25	4	30	40	2	5	10

1.19. Transforming Global Development through Collaborations

Social entrepreneurs design, develop and implement solutions to tackle critical global social, cultural, and environmental challenges using innovations. They have proximity with the communities which help them to create systemic solutions informed by the local context. They not only co-create solutions that cater to multiple stakeholders, but also build the conditions for everyone to contribute to the desired change thus creating a long-term sustainable change. But social entrepreneurs often lack financial resources required to scale and replicate their innovations. At the same time, there exist large international non-governmental organizations (INGOs) who are powerful actors in global civil society. They are multipurpose organizations pursuing humanitarian responses and development priorities. They have extensive expertise and global reach to deliver aid on a massive scale with thousands of employees across multiple global locations. Their annual budgets are sometimes even larger than many of the economic co-operation and development programs.

The world has so many interconnected problems which needs to be addressed but they are beyond the capacity of any single actor to adequately tackle to take on. Collaboration and partnership are the only way forward. There is a huge untapped potential of collaborations between social entrepreneurs and big international non-governmental organizations (INGOs) to scale impact and drive systemic change. They bring unique and complementary value to their collaboration which can help to scale innovations to accelerate impact. While INGOs can play an important role as connectors and partners for social entrepreneurs; social entrepreneurs have agile organizational structures which allow them to constantly experiment, iterate and optimize critical approaches to increase effectiveness of the programs. This helps them to scale their proven and tested innovations through the massive program delivery mechanisms of INGOs.

Large INGOs can be allies to social entrepreneurs and plays an important role in supporting them to drive change at scale. It is time to redefine the role of INGOs, shifting it from direct service organizations to scaling platforms that engage in long-term strategic partnerships with social entrepreneurs. This analogy of being allies with social entrepreneurs also applies to other key actors in the ecosystem such as governments, international programs, corporations and philanthropists. It is now time to build the bridge with social entrepreneurs. Together, they can combine their knowhow and co-create programs to better serve target populations which can help in advancing international development towards more inclusive, localized and co-created solutions. As the funding gap required to achieve the UN Sustainable Development Goals (SDGs) widens, this new collaborative approach of scaling impact and driving systemic change to solve the world's most pressing challenges is the future of development.

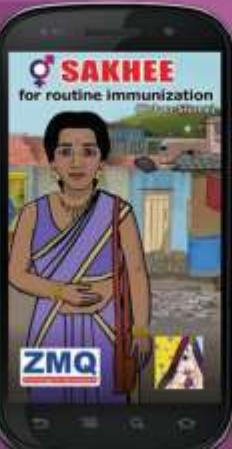


SAKHEE
Using Transgenders/Kinnars and their informant network to improve the immunization outcomes

CHALLENGES

- Poor Beneficiary Mapping in complex slum structure
- Weak Referral System and follow-up
- Immunization Hesitancy
- Ineffective outreach and poor communication strategies

SOLUTION = Transgenders and Networks (Mapping) + Mobile App (Tracking) + Story Telling (BCC)



Beneficiary Mapping
Mobile Tracking
Digital Story Telling & Talking Comics
Recall Reminder System
Immunization Delivery

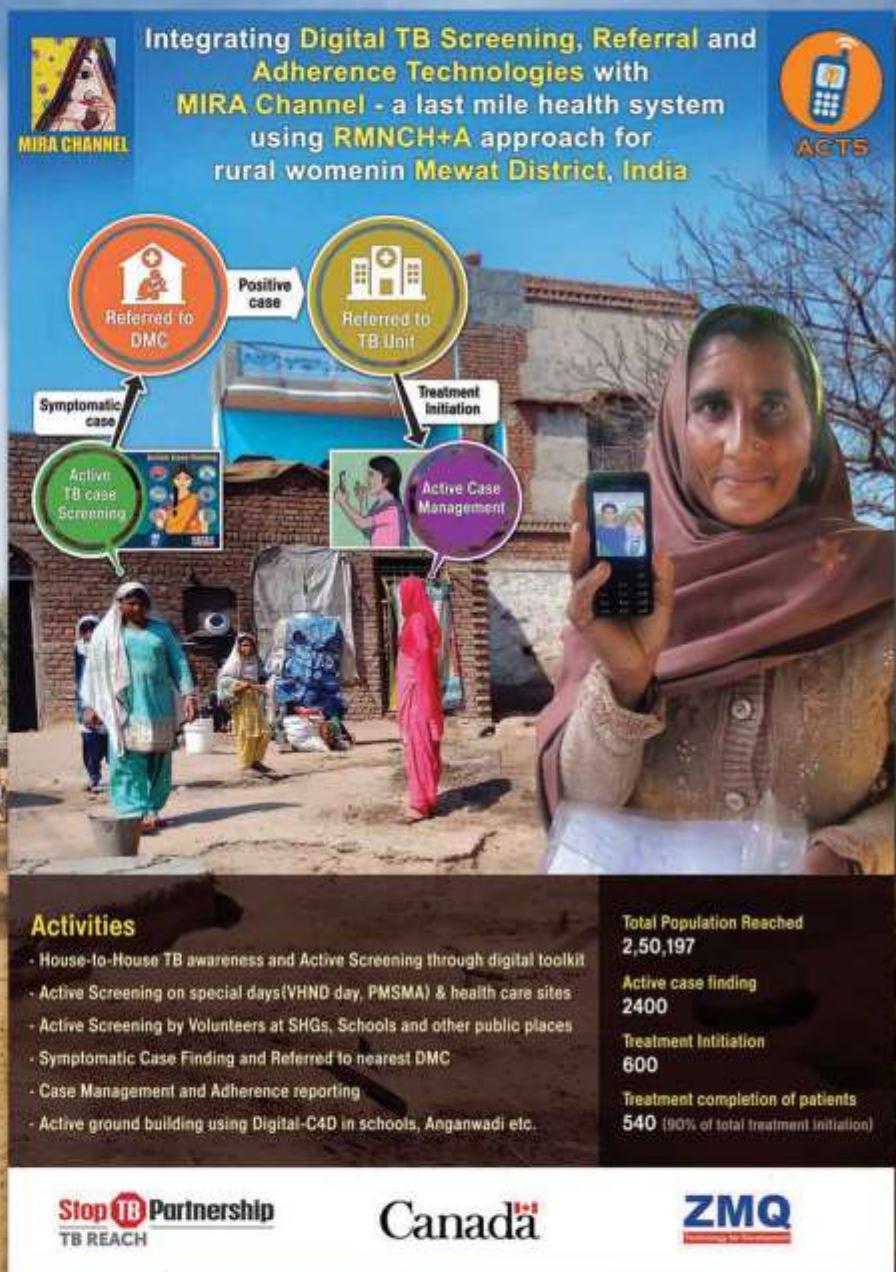
INNOVATION/USP:

- Using Transgender & their informant network for Beneficiary Mapping
- Using Transgender's core skills of Storytelling for BCC
- 'Sakhee' App for New Born Registration and Reminder-recall
- Integrated Talking Comics in 'Sakhee' App for awareness building
- Mainstreaming Transgender and their network for routine immunization
- Direct benefit transferred to Transgender and their network

ZMQ For more information: www.ZMQDEV.org Info@zmq.in

Gavi The Vaccine Alliance

INFUSE Gavi INFUSE



MIRA CHANNEL
Integrating Digital TB Screening, Referral and Adherence Technologies with MIRA Channel - a last mile health system using RMNCH+A approach for rural women in Mewat District, India

ACTS



The infographic illustrates the workflow of the MIRA Channel system:

- Referred to DMC**: Symptomatic case → Active TB case Screening → Treatment Initiation.
- Referred to TB Unit**: Positive case → Treatment Initiation.
- Active Case Management**: A woman in a pink sari is shown interacting with a digital tablet, which displays a "MIRA CHANNEL" interface.

Activities

- House-to-House TB awareness and Active Screening through digital toolkit
- Active Screening on special days (VHND day, PMSMA) & health care sites
- Active Screening by Volunteers at SHGs, Schools and other public places
- Symptomatic Case Finding and Referred to nearest DMC
- Case Management and Adherence reporting
- Active ground building using Digital-C4D in schools, Anganwadi etc.

Total Population Reached: 2,50,197
Active case finding: 2400
Treatment Initiation: 600
Treatment completion of patients: 540 (90% of total treatment initiation)

Stop TB Partnership
TB REACH

Canada

ZMQ Technology for Immunization

1.20. New Innovations in Digital Transformation - Triple Impact Model

In the new era of emerging technologies, ZMQ uses an innovative approach called the 'Triple Impact Model', a strategy to harness the latest approaches of Data Science, Artificial Intelligence (AI) & Machine Learning (ML) to deliver life-saving and sustainable solutions to millions of poor and rural communities of the global south based on the principles of Data Justice. The three pillars of the model are:

IoT4D (Internet of Things for Development): Embedding IoT in the disconnected regions to generate data and knowledge of the ground;

AI4D (AI for Development): Designing, building and training models to deliver life-saving and life-improving outputs and tools for solution providers and;

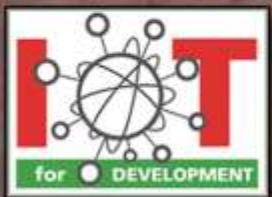
R4D (Research for Development): Generating enough quality data, building applications and scientifically testing them so that solutions can be applied for human development.

In order to accelerate development, there is a need to develop more Robust models using emerging technologies to quickly reach the different corners of the low and middle income countries where it is needed the most. Technologies like AI, ML, IoT, VR gives us that opportunity to scale solutions quickly.

With its AI4Dev center, ZMQ is working on a number of programs where AI can help us to forecast patterns and make critical decisions to save lives. AI can analyse large amounts of data and identify trends but it lacks the ability to understand the context behind the data. Some of the examples are as follows:

- AI can help detect accurately active pulmonary TB cases or stained TB bacilli with less radiologists or pathologists;
- AI can help in early diagnosis of Sepsis in infants or Pre-Eclampsia in pregnant women thus saving lives;
- AI can help solve complex public health challenges related to WASH - (Water, Sanitation, Hygiene) and reduce adverse outcomes thus saving lives.

ZMQ's Triple Impact Model





Part II

Compendium of Case Studies

2.1. MIRA Channel in India – Mobile Channel on Maternal & Child Health

Global Challenge: Globally, 131.4 million children are born each year where an estimated 2.6 million are stillbirths, 2.5 million are neonatal deaths and 303,000 maternal deaths occur. Maternal and Child mortality remains a big problem even though there is a substantial decline in global levels.

Program: ZMQ's MIRA Channel is an integrated mobile-phone channel to strengthen the last-mile health system by delivering appropriate communication and provisioning timely health service delivery to rural women on Maternal and Child Health (MCH). It has been designed to address low literacy levels among rural women. MIRA creates an opportunity to generate demand and build new health seeking behaviors. It runs through community health workers (CHWs also called MIRAs) linked with their respective auxiliary nurse midwives (ANMs) through two toolkits – MIRA toolkit and ANM Toolkit. These toolkits help ANMs track the activities of the MIRAs and help in monitoring the progress of the beneficiaries.

SBCC Need: MIRA started in Nuh (Mewat), a district in India with low development indicators. The community's lack of awareness on pre-natal and post-natal care leads to low demand for services during the course of pregnancy. In addition, with no supportive supervision and counselling tools available at the disposal of healthcare workers; the referrals, reporting and counselling to pregnant women & caregivers at the community level are weak. The program demanded an innovative SBCC tools like digital stories which helped in creating awareness among pregnant women.

Solution: ZMQ launched MIRA Channel, a last-mile & iconic-audio based health system for low literate rural communities using the RMNCH+A approach. The project provided health communication, health tracking and health service delivery to beneficiaries to build awareness, healthy behaviors and sustained demand for services. It also added culturally-centric digital-talking comics designed with community participation through story-labs to further improve health seeking behaviors and increase demand for services.

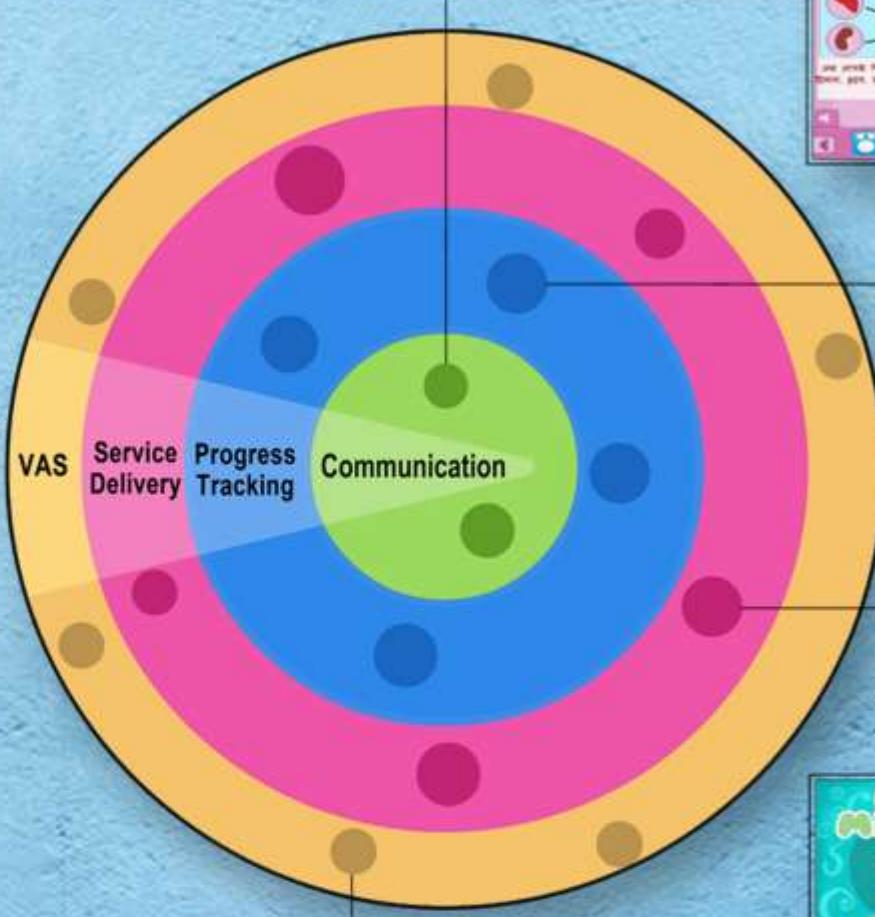
Tools: MIRA Channel brings in innovation in multiple ways. Innovation in Communication uses digital SBCC approach to interact with low-literate women using context-specific icons and localized audio messages. Innovation in Health Tracking uses a built-in progress tracking tools such as trackers and calculators to remain updated on the progress of each pregnancy and its relevant schedules. Innovation in Service Delivery, by integrating the last layer of public health service (Midwife) for timely delivery of health services like



ANCs, immunization, delivery of IFA tablets, high risk pregnancy care, institutional delivery, postnatal care, neonatal care, and other emergency services. It has a universal back-end system to store and manage the data, which carries all the information of the communities, households, families, children and pregnant mothers registered in the intervention area with a mapping system, its hierarchies, trackers and activities. MIRA also has a value-added services channel aimed at building the capacities of rural women by providing them timely messages using gamification and informative digital stories. The series of digital stories focus on critical issues associated with each trimester & post pregnancy, and are integrated with a robust M&E system for analytics. MIRA's M&E platform captures three kinds of data - User Input data, which records user details; Story session data, with pre-test & post-test questions to assess change in knowledge, attitudes and practices; and In-Story data, which captures the start time & end time of a story session, views, time spent and other footprints.

Implementation: The project has been implemented in Mewat (Nuh) in India using MIRA & ANM toolkits along with digital-stories in the local language. MIRA workers visited door-to-door, registered households & women, identified their pregnancy stage, and delivered timely information with stories on the MIRA platform. Each MIRA worker is responsible for a population of 1,000 and visited women at the household level. Along with conducting user sessions, other IEC campaigns like distribution of posters and pamphlets were done to reinforce the learning.

Reach/Impact: MIRA has reached over 2 million women & children and has been rolled out with SHG Federations along with the Livelihood Mission program to 510,000 women. A set of dedicated 500 MIRAs worked in 628 villages covering almost 744,000 people for 2 years. In the intervention area, there has been an increase in ANC visits by 55%, institutional deliveries by 49% and immunization rates by 41%. Prompt action has been taken by ANMs in 84% of the High Risk Pregnancies (HRPs) queries raised by ASHAs. Live data produced by the platform enables the state to take timely action.



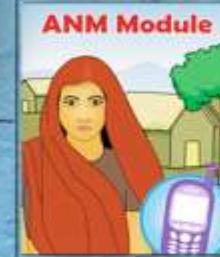
Communication

- Pre-natal Care
- Immunization
- New-born Care
- Family Planning
- Adolescent Girl Health



Progress Tracking

- Pregnancy week-by-week
- Immunization Tracker
- ANC Tracker
- Post Natal Care Tracker
- Menstrual Cycle Calculator



ANM Module

Service Delivery

- ANC Visits (PHC Connect)
- High Risk Pregnancy Referral
- RI & SIA Rounds
- Institutional Delivery
- Emergency Services



VAS

- Decision Story Telling
- Social Mobile Games
- Training Tools
- Skills Development



2.2. FreedomTB in India – Mobile based TB Reporting and Adherence System

Global Challenge: Tuberculosis (TB) is a major cause of death worldwide. Almost 10.4 million people in the world every year get sick with TB. India accounts for 27% of the global TB burden, with an estimated 2.9 million new TB patients in the year 2019. Failure to adherence to treatment of regular TB leads to MDR-TB (Multi-Drug Resistant TB), where patients develop resistance to regular first-line medicines prescribed for TB treatment.

Program: Freedom TB is a holistic mobile-phone solution to combat TB in high burden settings using the innovative model - ACTS (Active Care and Treatment Strategy). The key approach is being 'Active'. It gives to patients control to manage their treatment using mobile phone tools with video-based reporting along with reminders and other information channels. ACTS has multi-tier technologies for active adherence and community participation. The stages of ACTS are Active Ground Building, Active Case Finding, Active Patient Compliance, Active Community-led Supervision, Active Treatment Management and Active Ground Assessment. The first ACTS model was set up in 2014 in Mewat, district of Haryana in India, which has been replicated in many other districts across India.

Need for SBCC: The objective was to strengthen the existing system by actively engaging with the communities to find the missing patients. Seeing the low literacy level of the communities and their low health-seeking behaviors, digital storytelling is being used to create awareness and enable systematic screening of TB in individuals who are at high-risk of developing TB or that have complex treatment schedules.

Solution: Many solutions have been developed under Freedom TB. The earliest one was the TB-ACTS model of Mewat, which used all the 6 stages. The program laid down a foundation for digital solutions for TB awareness, case finding and management. It was supported by IKP Knowledge Park along with USAID and BMGF. With the support from USAID, DAT (Digital Adherence Technologies) supported the scaling of TB Treatment-Adherence strategy using the "cafeteria approach" for scaling of TB adherence and improving TB treatment using digital technologies. The program supported the integration of ACTS (VDOTS) with Nikshay platform which is delivered in 5 languages. Another program, PACT (Patient's Active Compliance and Treatment) is a comprehensive patient-centric solution with a 3-pronged strategy for DR-TB patients - Adherence & Self-Monitoring, Remote Consultations and built-in digital tools for Behavior Change Communication to inculcate healthy behaviors through digital stories, knowledge tools and timely reminders. The

Stages of ACTS

Stage I: Active Ground Building

Learning Tools/ Digital Stories/ Interactive Games/ ACSM

1

Stage II: Active Case Finding

Door-to-Door Screening / Testing / Referrals

2

Stage III: Active Patient Compliance

Patient tools for Evidence based Reporting (VOT)

3

Stage IV: Community-led Supervision

Group Active Compliance/ Family ACTS / Monitoring

4

Stage V: Active Treatment Management

OUTB Platform/DMCs/TB Units/Nikshay Integration

5

Stage VI: Active Ground Assessment

Spatiotemporal Epidemiological Model / e-Predict

6



program was awarded to ZMQ under 'Quick Fire Challenge' by Johnson & Johnson Innovation Challenge. Another program, 'Integrated approach for community-based TB case-finding' was implemented in Mumbra-Kausa in Maharashtra. The core intervention of the project was to do house-to-house visits to conduct Active Case Finding in the community using a customized digital toolkit, which was supplemented by adherence to treatment using VOT (Video Observed Therapy). In order to establish strong community engagement and to ensure community participation, digital communication tools like digital stories, social games and m-Training toolkits were deployed.

Tools: The solutions were comprised of 3 tools - Patient Adherence and Treatment Management tools, which reminds TB patients of daily medication and adherence reporting through VOT mode; Remote Consultation toolkit, which remotely connects the TB patients to a doctor for emergency consultations using Video Connect, and Value Added Services for TB Patients, which provides patients with digital behavior change communication and other content in localized language in form of digital stories and learning tools.

Implementation: Community health workers (CHWs) visit TB patients at their house, install the VOT app on their phones and provide trainings on how to report their adherence to treatment. Community workshops are conducted to create awareness using digital stories to inculcate behavior change and build the capacities of the communities. Using the Active Case Finding toolkit, coordinators conduct door-to-door visits to find the missing TB suspects.

Reach/Impact: The program increased screening and notification rate of TB patients. More than 35,000 patients have been registered on the ACTS platform for VOT. The program has increased Treatment Success Rates by 12%, Cure Rates by 14% and Adherence Rates by 18%. The program has impacted almost 320,000 indirect beneficiaries living in remote areas who have earlier never been addressed about TB.



2.3. Hatching Hopes India - Improving Nutrition & Production through Poultry

Global Challenge: Around 663 million people globally are undernourished. In LMICs, approximately 45% of deaths among children under-5 years of age are linked to undernutrition. Drought and structural deficiencies have left a significant number of poor people in India vulnerable to malnourishment. One of the major causes of the country's malnutrition is economic inequality. Additionally, women who are malnourished are less likely to have healthy babies, which inflict long-term damage to individuals and society.

Program: Hatching Hope India initiative is an innovative program to address poverty and malnutrition using the power of poultry in tribal and vulnerable communities with a goal to improve nutrition and economic livelihood opportunities in the Mayurbhanj district of Odisha, India. Production of poultry meat and eggs is important to increase the livelihood opportunities of women. Having a backyard poultry system plays a pivotal role in achieving nutritional security for the households in rural areas. The objectives of the program were to introduce poultry farming to households currently not involved in the poultry value chain, improve production among small poultry producers, provide access to markets and promote the consumption of poultry and eggs by nutritionally vulnerable especially young children and women of reproductive age. The program was supported by Cargill and Heifer International.

SBCC Need: The Mayurbhanj district has a tribal-dominated population, which is marginalized, vulnerable and experiencing extreme level of health deprivation, especially among women. The female literacy rate of the district is 45.53%. The majority of the people there speak the Santhali language which doesn't have any written script. Being a low literacy population, it was a huge challenge to design training programs and conduct any kind of formalized trainings to achieve increased nutritional outcomes for these tribal communities. ZMQ adopted a multi-faceted SBCC approach of using digital tools and mass media campaign. One of the most suited strategies was to use role-playing stories and digital talking-comics to create an effective change among the communities.

Solution: The program used both digital and non-digital to deliver an impactful solution with a robust implementation strategy on the ground.

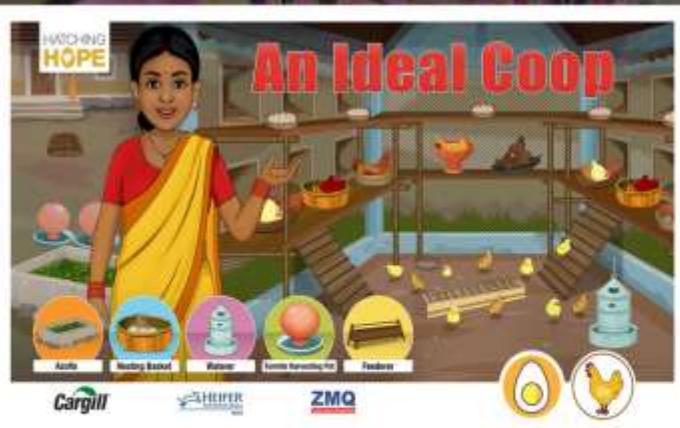
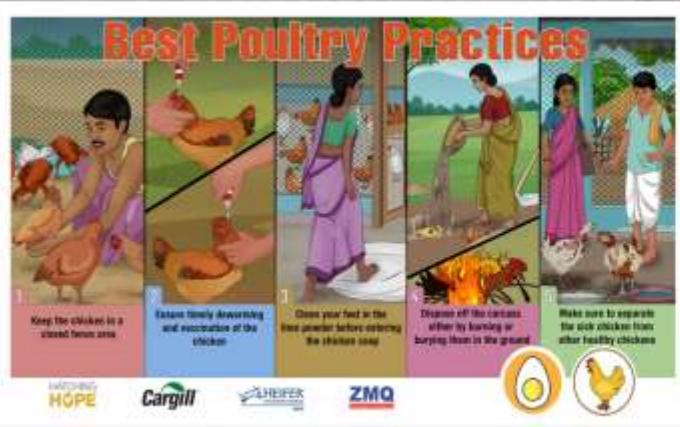
Tools: The program used tools like 1) Digital Stories - Six localized digital stories, three on nutrition and three on poultry production techniques, were developed using the YST approach; 2) mTraining Toolkit - Mobile phone based audio-visual digital training toolkit,



which comprised of training modules on production techniques of chicken and eggs as well as on nutrition for health with a pre & post-test; 3) IoT Toys - digital toys were placed in health centers, integrated with the immunization system, which delivered customized audio messages to the mothers about routine immunization of their children along with nutrition messages; 4) IEC material - several categories and sizes of print material such as hand-outs, pamphlets, poster, kiosks and billboard were developed on nutrition and poultry production. The material was highly colorful and attractive, depicting the traditions of the community, and reinforced learning and 5) PMNE kit - a Monitoring and Evaluation (PMNE) platform was developed to monitor the progress of campaigns and their components. Real-time data was collected and displayed on the dashboard to track progress.

Implementation: One of the strengths of the program was its holistic implementation strategy using both digital and non-digital campaigns. Digital stories were disseminated through community mobilization methods such as door-to-door visits and sessions with OHNs like SHGs. They were screened at various high footfall points in the village like bus stands, mobile recharge shops, village fairs, markets, etc. The mTraining toolkit trained BYP workers on poultry production techniques. IoT toys were also deployed at the health centers and were integrated with the immunization system. Non-digital campaigns used print material like pamphlets, posters and billboards. It used the innovative MIRA theatre, a grass-root cinema with a canopy and a TV screen connected with a solar panel which screened digital films (stories) at various locations in numerous sessions. It also used informative booths and kiosks placed at high footfall points, which also displayed digital tools. The program also used thematically designed auto-campaigns, street plays by professional troupes and radio campaigns with audio stories. The program also engaged with other stakeholders like suppliers and vendors and aligned with existing governments and other NGO programs.

Reach/Impact: The HHI intervention has reached 330,802 households (1,654,010 people) and created over 120 rural women entrepreneurs and substantially improved the nutrition level of the communities.



2.4. Vishwaas - Tackling Childhood Pneumonia in India

Global Challenge: Globally, pneumonia is responsible for high morbidity and mortality among children under 5 years of age. India accounts for one-third of the total WHO South East Asia burden of under-five mortality. In the most recent estimate of Acute Lower Respiratory Infections associated mortality in India in 2014, pneumonia accounted for 369,000 deaths, representing 28% of all deaths, making it the single most important killer in this age group.

Program: In 2010, Pneumococcal pneumonia was estimated to account for 30% of all pneumonia deaths in India. In 2017, the Ministry of Health and Family Welfare of India introduced the pneumococcal conjugate vaccine (PCV) with prioritized roll-out to the states with the highest pneumonia burden. In 2019, ZMQ partnered with Philips Foundation and Ashoka to create a double impact collaborative action lab to combat childhood pneumonia through its already existing program MIRA Channel. It/The program puts forth an awareness campaign using the local language along with the PPT model (Precaution, Prevention and Treatment) and with a specific focus on the pneumococcal conjugate vaccine. Furthermore, the goal was set to reduce mortality caused by childhood pneumonia from the current 5.7 per 1,000 livebirths to less than 3 per 1,000 live births, in tune with the goal of India's Integrated Action Plan for Pneumonia and Diarrhea (IAPPD). To address the issue of childhood pneumonia, ZMQ proposed a mHealth SBCC & Case management model to enable active case finding, facilitate effective case management and real time integration with the health system. This project was executed in partnership with Save the Children and Philips Foundation in the districts of Bahraich (UP) & Tonk (Rajasthan) in India.

Need for SBCC: Low literacy rates in the 3 aspirational districts is one of the reasons of delay in seeking appropriate care or not seeking any care at all, which leads to a large number of pneumonia deaths. The key barrier for health-seeking has been the lack of symptom recognition like chest in-drawing as a sign of pneumonia. Often caregivers fail to identify fast or difficult breathing as a serious sign of childhood pneumonia. Consequently, there was a need to create community awareness tools, such as customized SBCC tools, for caregivers and for case management model to tackle pneumonia effectively.

Solution: To address the gap in the knowledge level and to bring about positive change in the service-seeking behaviors, ZMQ decided to use digital talking comics to create awareness on pneumonia addressing rural women. This was also essential to develop customized behavior change communication interventions for the defined intended groups like ASHAs, ANMs, pharmacists, doctors, caregivers



Beloved Munna
(प्यारा मुन्जा)



ZMQ

YourStoryTeller

Supported by
Philips
Foundation



and extended families. These interventions allowed for easier and quicker understanding of specific pneumonia related information, risk factors, immunization & nutrition that result in case finding and expedite treatment of the infected children. The program further developed a mHealth model for Case finding through door-to-door assessments, screenings and referrals; and case management by establishing a service-connect for timely treatment, care and follow-ups.

Toolkits: The program comprised of 3 toolkits - 1) Digital stories comprising of 6 stories in the local language integrated with MIRA Channel to create awareness on childhood pneumonia by identifying danger signs, prevention; 2) SBCC toolkit to activate the ground for counselling at different levels of the health system, starting from community members to ASHAs, ANMs, clinical providers and non-clinical providers; 3) mHealth Case Management Toolkit based on government guidelines of the SAANS campaign and it follows a complete pneumonia case management algorithm; starting with mapping of households, to screening and categorization of pneumonia patients among children under 5 years, continued with referrals, counselling, follow-ups and finally case closure.

Implementation: The door-to-door strategy was used to disseminate stories through MIRA workers under a single delivery mode to mothers and pregnant women to raise awareness around causes, prevention, protection, treatment and management of pneumonia. MIRA Theatres were conducted in the communities. Alongside them, community labs are setup to deploy SBCC trainings to target groups like caregivers, extended family, community members, front-line health workers, clinical providers and non-clinical providers. The toolkit was also used to train FHWs for providing counselling services. Under the project, the team also engaged with the pharmacists and medical officers to build awareness and provide a supportive supervision tool for improved knowledge and awareness. Additionally, group sessions were conducted with pre-identified groups like women and children on special days like VHND (village health and nutrition day) and during various community meetings.

Reach/Impact: The stories reached over 80,000 mothers and community members in 3 districts. The SBCC toolkit trained over 2500 healthcare providers. The program screened 5309 children. Out of them, 370 (7%) of them were positive cases, 63 were Possible Serious Bacterial Infection (PSBI) cases, 74 were severe pneumonia cases, 3 were Pneumonia cases and 230 were other severe diseases.



2.5. TB Reach - Integrating MIRA with FreedomTB for Case Detection in Women

Global Challenge: Every year, almost 10.4 million people in the world get sick with Tuberculosis (TB) but almost 40% of these cases are missed by the health system - failing to be reported, diagnosed or treated.

Program: ZMQ was awarded the TB REACH grant by StopTB Partnership (Geneva) and GAC to implement active case finding intervention in Mewat to increase TB notification (TB detection) among rural women. It used FreedomTB's strategy to screen and detect TB cases integrated with MIRA Channel - a mobile based platform on RMNCH+A to reach rural women.

Need of SBCC: Nuh is a backward district in India with a low literacy rate among women which creates barriers to access appropriate health information. ZMQ used its proven methodology of digital storytelling combined with ACF intervention to increase TB awareness and subsequently increase TB notifications among women.

Solution: ZMQ developed a combined storytelling and ACF intervention. The stories were created using a participatory approach by engaging the community and using their knowledge and experience. All the characters, voice-over and scenarios in the story were highly localized to intensify reach and acceptability within the community.

Tools: The program developed various digital tools; from awareness, to case finding and adherence. It used digital stories on TB for SBCC; the mLearning Toolkit to impart right knowledge; and the TB Screening Toolkit for ACF (Active Case Finding) to screen active TB cases using audio-visual questions to check symptoms or about symptoms. The digital tools were ingrained with a robust M&E system to be able to observe the transition in Knowledge, Attitude and Practices of the communities around TB.

Implementation: The program used the Active Case Finding (ACF) intervention by incorporating two distinct screening approaches: house-to-house dissemination and screening together with community-based dissemination /screening through trained MIRA workers (ASHAs) with mobile tools for screening, sputum collection and referrals.

Reach/Impact: The program increased TB case finding among women by 18%. Moreover during the COVID-19 pandemic, the case finding in other TB projects drastically went down while those in this project increased due to the use of technology.



2.6. Sakhee – Reaching Zero-Dose Children in Urban Slums

Global Challenge: In 2020, approximately 17 million of 75.2 million children were not fully vaccinated, out of which 12.5 million did not receive a single dose of DTP-containing vaccines, defined as 'Zero-dose' children. Only 4.8 million children were partially vaccinated without having completed the required 3-dose schedule in the first year of life. 50% of vaccine preventable deaths occur among zero-dose children. Two-thirds of them live in extremely poor households suffering from multiple deprivations including lack of access to reproductive health services, water and sanitation.

Program: In 2019, ZMQ was selected as INFUSE pacesetter by Gavi for its innovation uniquely positioned to address immunization challenges in urban settings in India. Reaching zero-dose children and missed communities is central to Gavi's mission and for the success of immunization in India. The Sakhee project is designed to build robust evidence to assess the effectiveness of the SBCC tools in raising knowledge about immunization among zero-dose children in urban slums.

Need for SBCC: Missed communities are home to clusters of zero-dose and under-immunized children who often face multiple deprivations and vulnerabilities related to poverty, conflict, forced migration, homelessness, socio-economic inequities and gender-related barriers. There is a need to use the SBCC strategy to increase their immunization levels.

Solution: The Sakhee project engages with the transgender community (as influencers) and use their strong informant network to identify high risk populations - new-borns, dropouts & fallouts to ensure timely follow-ups and the reminder recall system. Transgenders live in urban slums and make a living as street performers by singing, dancing and performing blessings for donations. They use the mobile Sakhee App for Immunization tracking and referral and provide SBCC messages through digital talking-comics on different vaccines and immunization urgency to improve KAP levels and to address vaccine hesitancy and gender disparity, thus increasing the immunization rates.

Implementation: The program is being implemented in the peri-urban settings of the Mumbra-Kausa slums in Thane district of Maharashtra. The project also uses MIRA Theatre and other effective community mobilization strategies to engage with hard-to-reach communities.



Lesson from Shahrukh

(शाहरुख से नसीहत)

ZMQ

SAHHEE

Gavi

2.7. Digital Edutainment based Courseware on SRHR in Uganda/Rwanda

Global Challenge: Violence against women and girls surged in the wake of COVID-19. Nearly 7 in 10 women say that verbal or physical abuse by a partner is common, and 1 in 4 women described frequent household conflicts. Over the past year, nearly 1 in 10 women aged 15+ have experienced physical and/or sexual violence by a partner.

Program: Uganda has very poor Sexual Reproductive Health and Rights indicators including early sexual debut, high teenage pregnancy, forced child marriages, sexual and gender-based violence, sexual abuse and high school dropout rates. Adolescent girls living in urban slums and rural areas are exposed to risks of violence, unsafe sexual activity, early pregnancy, rape and abuse. ZMQ started a SRHR-based simulated e-Training platform with digital stories and eLearning modules to create awareness on sexual rights to decrease gender-based violence among youth.

Need for SBCC: There is limited knowledge on SRHR among the adolescent girls and boys in Uganda. There is no curriculum available in the schools. Ignorance, negative social norms and peer pressure impacts adolescent boys and girls to great extent. There is an urgent need to introduce an effective behavioral change program.

Solution: Using YST, a digital storytelling strategy was identified as an appropriate tool to inculcate changes in knowledge, attitudes, norms, beliefs and behaviors of the users related to SRHR.

Tools: A set of 6 digital stories modules were produced in three local languages of Uganda with localized characters that helped in creating awareness on SRHR issues. The platform has 6 story plots with e-Training modules with pre-test, post-test and interactive content.

Implementation: The program is being implemented with local community-based organizations, girls clubs, schools, health centers and SRHR training centers as rural digital labs to deliver a SRHR curriculum in rural areas/urban slums in Uganda. Solar-powered rural labs, MIRA Theatres and digital films on the SRHR issue are showcased to create awareness and results are gauged using the KAP model (Knowledge, Attitudes & Practices).



Digital Courseware on
Sexual & Reproductive Health and Rights

25 Years

Digital Courseware on
Sexual & Reproductive Health and Rights



ZMQ



2.8. Mawe Tatu - Challenging Gender Norms to Empower Women Entrepreneurship

Global Challenge: Women still confront violence, abuse and unequal treatment at home, at the workplace and in their communities. Globally, women earn 24% less than men. 75% of working women in developing regions compose the informal economy, where they are less likely to have employment contracts, legal rights or social protection, and are often not paid enough.

Program: Supported by CARE (Netherlands), the Mawe Tatu program aims to improve the socio-economic status of women through entrepreneurship in North and South Kivu of DR Congo. The area is strongly affected by multiple wars leading to large-scale destruction of essential economy which is impacting women more due to the exacerbation of inequalities, violence and poor healthcare.

Need for SBCC: The objective of the program was to address harmful and discriminatory social norms that prevailed in the communities and prioritize the ones which can potentially improve the social status of women and young people and enable them to influence decisions that affect their households and communities to change the state of mind towards women entrepreneurship, sexual & reproductive health and positive masculinity.

Solution: The most promising option was to address the identified social norms, create awareness and inculcate social behavioral change using digital stories. The three social norms identified were: it is socially expected that men have the supremacy of rights and power over women, a woman must always procreate and women cannot lead men or occupy a position of responsibility in the community. The program also developed an interactive decision-tree game for users to discover a path by making different choices. The game would end in different results based on how well the users understood the issues based on their decisions. At every decision point, a footprint is embedded to track user behaviors and capture data from different scenarios, decisions taken, influencing factors, consequences of each action and points scored, which helped in assessing the knowledge gaps, risks taken and behavioral patterns.

Implementation: The program was implemented in the midst of the COVID-19 pandemic through community workshops by local partners in 9 health zones, 4 in North Kivu and 5 in South Kivu.



ZMQ

YourStoryTeller

2.9. Digital Talking Comics - Rural Women Entrepreneurship Training in SHGs

Global Challenge: Women constitute nearly 50% of the world population but perform two-thirds of the work, earn one third of the remuneration and own 10% of the property or wealth. There are fewer opportunities for women than men for economic participation and less access to education, healthcare, safety and political representation.

Program: Women's Global Development and Prosperity (W-GDP) Initiative is a partnership between USAID and Reliance Foundation to bridge the gender digital divide in India by focusing on women prospering in the workforce and succeeding as entrepreneurs. ZMQ received the WGDP award for their program on Entrepreneurship Development for Rural women in SHGs in Mewat by empowering them economically through digitally distributed micro-schools.

Need of SBCC: Nuh is predominantly inhabited by the backward Meo community with extremely low development indicators where the literacy rate of women is barely 37%. The use of digital stories for SBCC trainings was identified as the best option to train women, address their needs, fill knowledge gaps and motivate them to attain financial stability.

Solution: ZMQ developed and deployed edutainment-based mobile training courseware on Entrepreneurship Development for rural women in the SHGs. The courseware was divided into 6 modules; each divided into 2 categories - digital storytelling to initiate dialogue and digital courseware with technical knowledge for business setup. It focused on business ideation, business plan development, understanding customers, product development, service provision & pricing, packaging & sales method and market linkages.

Implementation: The program conducted story labs with SHG women to comprehend their needs and understand entrepreneurship development. It used a facilitator who assisted in dissemination of courseware in a micro-classroom mode. The stories were also screened in the community using MIRA Theatre, a grassroot cinema.

Reach/Impact: It reached over 24,000 women in SHGs out of which more than 170 turned into entrepreneurs who started earning 3 times more than their earlier income.

Product Development and their Pricing

(उत्पाद की रचना और उनका मूल्य निर्धारण)

Reliance Foundation ZMQ USAID



2.10. Freedom HIV/AIDS – Mobile Phone Games for HIV/AIDS Awareness

Global Challenge: HIV/AIDS was a major health challenges in 2003-2004. Then around 40 million people were living with HIV/AIDS in the world, 5.7 million of them being in India. The epidemic killed 3 million people in 2003.

Program: The population of India was approximately 1 billion in 2004-05. 70% of India's population then lived in rural areas with little access to information. HIV continued to spread predominantly amongst poor and marginalized sections of society including sex workers, injecting drug users, men having sex with men and migrant laborers. During that time, the use of mobile phones in India was exponentially growing. ZMQ used the ubiquity of mobile networks, especially in remote and media dark areas, to provide health communications in low-resource settings using affordable phones. On 1st December 2005 (World AIDS Day), ZMQ launched 'Freedom HIV/AIDS' initiative to create awareness on HIV/AIDS using mobile phones games. It was released by former Chief Minister of Delhi, Mrs. Sheila Dikshit. In span of 3 years, the initiative reached over 42 million subscribers with 16.7 million game sessions played.

SBCC Need: The culture of silence surrounding sexual issues led communities and youth to remain ignorant about HIV/AIDS, how it spreads and prevention options. Also, prevalent gender inequalities in society left girls and young women already socially and economically disadvantaged left them particularly vulnerable to HIV. The option was to use SBCC on HIV/AIDS through games and edutainment tools.

Solution: Freedom HIV/AIDS was the world's first and largest-ever social initiative using mobile games. In 2006, it was scaled to different parts of Africa. Over the years, a lot of new mobile games based social initiatives started worldwide. Many American and European universities started teaching social mobile games as an impactful strategy for SBCC.

Tools: Some of the initiatives under Freedom HIV/AIDS by ZMQ were:

Freedom HIV/AIDS India: The strategy was to create four games to address the different mindsets of people, rural communities and out-of-school children through popular games with well-designed messages, easy to maneuver user interface and clear instructions. The games were: 'Safety Cricket' – a mass appeal game using cricket, the most popular sport in India. The messages clearly demonstrated how a risky shot played by a batsman can bowl him out from the game and similarly in a real life scenario. The game is

FREEDOM HIV/AIDS

First ever Social Initiative using Mobile Games



based on social theory to develop self-control and risk-reduction skills. 'AIDS Messenger', adventure-based multi-level maneuvering game to deliver correct objects like condoms, safe sex instructions, red ribbons, health tips, access to blood tests (HIV testing), counselling tips, tips to reduce stigma, and more, to virtual communities based on their needs and risk assessments. 'Life Choices' – a multi-scenario role-play game based on life skills, where the user examines various feelings, negotiates relationships, encounter risk situations, take decisions, and find ways to tackle them. 'Great Escape' - a role-play based detective game where the player is a detective who is trapped in different risk situations and needs to fix them by finding the best solutions to ultimately be able to escape to win the game. The objective of the games was to reach out to youth to increase their knowledge about HIV and AIDS, with the broader goal of encouraging behavior changes like promoting abstinence, increasing the correct and consistent use of condoms, reducing myths and misconceptions, reducing levels of stigma and discrimination, and increasing demand for information and services related to HIV and AIDS. Other programs were:

Africa Reach Program: In a joint collaborative partnership with Hivos and KPN's 'Star Program'; Freedom HIV/AIDS covered 6 countries in Africa. The games reached over 2 million mobile subscribers.

Carnival Health Mela: It was an interactive game-based carnival on HIV/AIDS for schools with role-play games, interactive stories, eLearning zones and interactive quizzes on HIV/AIDS supported by JHUCCP and USAID.

Path of Life: It was a role-play game developed in 5 local Indian languages - Hindi, Marathi, Kananda, Telegu and Tamil; developed in collaboration with Plan International and supported by UKAID.

It's My Life: A multi-level interactive role-play game to create awareness on HIV/AIDS was produced in four foreign languages – English, French, Spanish and Russian; developed in collaboration with Path and supported by UNESCO.

Monitoring & Evaluation Training Program: In partnership with GBC and GTZ, M&E toolkits were developed on HIV/AIDS, tuberculosis and malaria at the workplace. Other partners were GlaxoSmithKline and Deloitte Consulting.

Implementation: Freedom HIV/AIDS was implemented through multiple modes - community based workshops, school programs and through NGOs. Some of the international organizations that supported the initiative were USAID, DFID, PEPFAR, EU, GIZ, Hivos, UNESCO, KPN, JHUCCP and Plan. The program scaled both horizontally and vertically.



2.11. MIRA Afghanistan - Mobile Channel on Maternal & Child Health

Global Challenge: Maternal and Child mortality remains a huge challenge in Afghanistan with MMR being 440 and IMR being 71, whereas only 43% of women opt for the traditional method of home-based delivery and only 38.7 % of births are assisted by skilled health workers.

Program: ZMQ's MIRA program scaled from India to Afghanistan in 2014 using a similar strategy by identifying a rural district, Herat, with low MCH indicators. MIRA is an integrated mobile channel to strengthen the last-mile's health system by delivering appropriate communication and provisioning timely health services to rural women. MIRA also included an education channel for girls as they historically face disadvantage when it comes to accessing education.

Need for SBCC: It was CHWs' responsibility to address communities as the majority of them are low literate. ZMQ decided to use the integrated approach of using iconic tools, tracking systems and digital storytelling for SBCC.

Solution: To address the challenges of lack of awareness about pre-natal and post-natal care among rural women, ZMQ used MIRA Channel along with culturally-centric digital talking-comics to help improve health seeking behaviors. During the house-to-house visits by the MIRA workers, it became easier for them to convince women to take up services. The stories were designed with community participation through story-labs. Additional stories to educate girl children in Afghanistan were also deployed.

Tools: A comprehensive MIRA toolkit was deployed which covered all the aspects of pre-natal care, immunization, institutional delivery, danger signs and post-natal care which has built-in analytics like tracking user behavior. The digital stories based on each trimester were embedded in the MIRA toolkit. The stories had pre-test & post-test modules to assess the knowledge, attitudes & practices (KAP) of the users.

Implementation: MIRA Channel was implemented in Afghanistan through community health workers (MIRA workers). Every MIRA worker was assigned a village where they identified pregnant women and performed house-to-house visits on a weekly basis. The stories were disseminated in groups through workshops, sessions and MIRA Theatre.



2.12. MIRA Uganda/Rwanda - Mobile Channel on Maternal & Child Health

Global Challenge: Maternal and Child mortality remains a huge challenge in Uganda with the MMR being 360 and the IMR being 45, whereas only 43% of women opt for the traditional method of home-based delivery and only 57 % of births are assisted by skilled health workers.

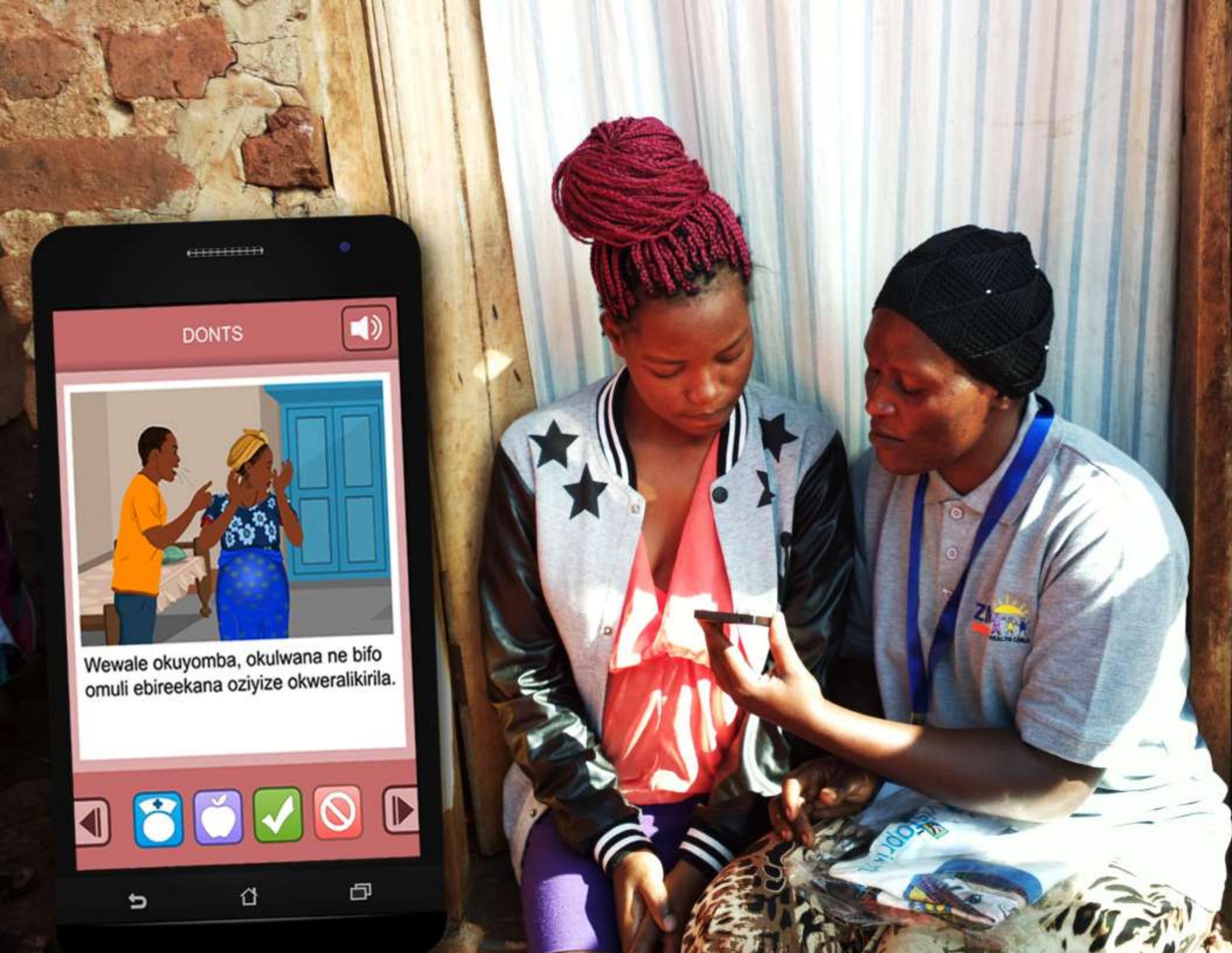
Program: ZMQ's MIRA program scaled from India to Uganda using a similar strategy by identifying a rural district in Uganda, Jinja, with low MCH indicators. MIRA is an integrated mobile-phone channel to strengthen the last-mile's health system by delivering appropriate communication and provisioning timely health service delivery to rural women.

Need for SBCC: It was CHWs' responsibility to address communities as the majority of them are low literate. ZMQ decided to use the integrated approach of using iconic tools, tracking systems and digital story-telling for SBCC.

Solution: To address the challenges of lack of awareness about pre-natal and post-natal care among the rural women, ZMQ used MIRA Channel along with culturally-centric digital talking-comics to help improve health seeking behaviors. During the house-to-house visits by the MIRA workers, it became easier for them to convince women to take up services. The stories were designed with community participation through story-labs.

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Implementation: MIRA Channel was implemented in Uganda through community health workers (MIRA workers). Every MIRA worker was assigned a village where they identified pregnant women and performed house-to-house visits on a weekly basis. The stories were disseminated in groups through workshops, sessions and MIRA Theatre.



Wewale okuyomba, okulwana ne bifo
omuli ebireekana oziyize okweralikirila.

2.13. FreedomTB Uganda/Rwanda - Mobile based TB Adherence System

Global Challenge: In Africa, TB is on the rise due to weakened immune systems as a result of HIV/AIDS. In the list of 30 high-burden countries with TB, 15 countries are in Africa, they are also in TB/HIV co-infection list, Uganda being on the top.

Program: ZMQ's proven and tested program, FreedomTB-ACTS model, a holistic mobile-phone solution to combat TB in high burden scenarios, was replicated and scaled from India to Uganda in 2016. The program partnered with National TB and Leprosy program of Ministry of Health Uganda. It started with 1 district, Mulago (Kampala), and then scaled to more than 15 districts in a period of 6 years. The program is now going for national adoption.

Need for SBCC: With low literacy rates, especially in the interiors of the country, where ignorance is very high, it is extremely difficult to create awareness on Tuberculosis. Information made available through print media is almost inaccessible in rural areas as oral culture still remains the preferred means of communication.

Solution: ACTS is a bottom-up strategy and has multi-tier technologies at various stages with a built-in environment for active adherence and community participation to reduce the burden on existing infrastructures. The six stages of ACTS are Active Ground Building, Active Case Finding, Active Patient Compliance, Active Community-led Supervision, Active Treatment Management and Active Ground Assessment. The model empowers patients to take control of treatment with reminder systems, reporting, dosage tracking, test scheduling and provider-connect for need-based supervision.

Tools: Some of the tools developed were the TB screening toolkit for active case finding, VOT (video-observed toolkit) for reporting adherence to treatment and a set of digital communication tools such as TB digital stories, m-Learning toolkit and social games to create awareness on Tuberculosis.

Implementation: The program was implemented in 15 TB high-burden districts of Uganda. Community mobilizers and VHTs conduct house-to-house activities to disseminate digital stories. The stories were translated in 5 popular regional languages – Lusoga, Luganda, Swahili, Runyankore and Ruturoo covering more than 83% of the population.



2.14. Aajeevika Connect – mTraining for Rural Women on Farm, Off-Farm and Non-Farm Skills

Global Challenge: People living in rural areas especially women shoulder the burden of the world's poverty. Indeed, about 75% of the world's poor live in rural areas, out of which 60% of them are women and girls. With rural areas unable to provide enough opportunities to sustain lives, the burden of supporting poor and rural populations falls increasingly on migrating to cities, leaving behind women thus creating unbalanced family structures and increased chances of poverty.

Program: In 2013, ZMQ started the Aajeevika Connect program to train rural women in SHGs. Most of the rural population depends, directly or indirectly, on farm-based activities. ZMQ added off-farm activities like poultry, fishery, and pastoral animal husbandry and facilitated non-farm economic activities to train women to have dignified livelihood opportunities. Later, health and financial literacy trainings were also embedded in the program.

Need for SBCC: The majority of rural women are low literate and many of them have never attended school. To bring them out of poverty, they need to be trained to earn dignified livelihoods which can be achieved by motivating them to undergo trainings and further build their capacities through edutainment-based digital tools.

Solution: SHGs form a beautiful collective group with a classroom model. Aajeevika Connect trains women on 3 basic skills - Farm, Off-Farm and Non-Farm, through a mobile training platform where SHGs deliver livelihood trainings. It has 2 more toolkits - financial management system for financial literacy and a lifeline channel for health communication.

Tools: Aajeevika Connect's digital platform provides interactive training designed with rich multi-media, localized graphics and audio-visual support using mobile phone to cater semi-literate women. The platform is flexible for other content providers to deliver their training modules on a one-on-one basis or in a micro-classroom group mode.

Implementation: The program was implemented in rural Haryana - Tauru block of Mewat and Matanhail in Jhajjar through trainers and coordinators using the digital tab as a classroom. We worked with 3,200 SHGs and scaled to 48,000 women in Mewat and Jhajjar districts. The program has increased the income of poorest women 3-4 folds.



Aajeevika Connect

2.15. Kreed Aangan - Digital Playground on Entry Level Literacy for out-of-school Children

Global Challenge: According to the 2001 census, one out of every three out-of-school children in the world resides in India. 53% of students drop out before completing primary school. Educating girls has been a challenge in itself. As per the 2014 report, only 53% of schools have functional girl's toilets and 74% have access to drinking water.

Program: In 2002, ZMQ started its pioneering program called 'House of Learning' and launched 3 initiatives - Entry Level Literacy for out-of-school children, Entry Level Literacy for girls, and Entry Level Literacy for Adults, which later evolved into Kreed Aangan, a program focused on providing basic reading and writing skills to out-of-school children.

Need for SBCC: Most of the children who dropped out of schools learned only very little in schools. Many of these children couldn't even read and write. If they ever get enrolled back in school, their problem of poor learning persists as they are already behind other children, where many of them may again drop out or complete school with poor education. There arose a need to educate children through innovative tools and technologies.

Solution: Children need to learn to read so that they can read to learn. ZMQ developed a program to train children to read and write and used edutainment based interactive games which assists in learning quickly and with longer retention of information. Later, ZMQ moved to mobile phones and tablets to provide them home-based education.

Tools: One of the initiatives of Kreed Aangan has been Smart Madrasa, a digital program to provide basic reading and writing skills to rural children going to madrasas. The program also delivers entry-level mathematics and science skills to students. The learning is given through game-based digital tools using smartphones and tablets. The program has been implemented in rural madrasas through local educators who are trained to deliver trainings to students.

Implementation: The program was implemented through local educators in 5 Madrasas with over 1,200 children - 847 boys and 353 girls in 2 states of India. Up till now, 91% of the boys and 78% of girls have been enrolled back in schools to obtain mainstream education.

ZMQ
Zain ul Qadaria

Smart Madrassa

Mainstreaming Madarsa Education

Early Grade Reading /Writing skills
and Entry level Mathematics using
Edutainment



2.16. Window of Quebec – Addressing Racism & Discrimination using Digital Storytelling

Global Challenge: According to a GSS survey, 46% of Black people aged 15+ years reported experiencing at least one form of discrimination in the past 5 years as compared to 16% for the non-Indigenous, non-visible minority population. 33% of the indigenous population experiences discrimination.

Program: Supported by Canada Heritage under the Anti-Racism Action Program, Window of Quebec (WoQ) was launched to strengthen diversity and inclusion at the workplace by creating awareness and building empathy on racism and discrimination using digital stories. Window of Quebec works with six marginalized communities in Québec, namely Indigenous, Black, Arab, Latin American, South Asian and South East Asian.

Need for SBCC: One of the effective ways to address a sensitive issue like racism and discrimination is through the SBCC strategy. The best evidence suggests that storytelling possesses a unique capacity for raising awareness among large numbers of people on critical social issues and to motivate them to adopt new behaviours, attitudes and practices.

Solution: WoQ launched 12 digital stories which were collected as grassroot testimonials after interviewing 1200 people from BIPOC (Black, Indigenous and people of color) communities based on real-life experiences. The stories were developed both in French and English and were disseminated through corporates and organizations.

Tools: Two stories on each of the six marginalized communities in Québec namely Indigenous, Black, Arab, Latin American, South Asian and South East Asian were developed. Each story included five components namely a testimonial based on true incidents, its impact on the victim, proposition of an inclusive scenario, after thoughts, lessons learnt by other characters and evidence-based references to the advantages of diversity and inclusion.

Implementation: The stories were disseminated through selected organizations (corporations, government organizations, NGOs) by conducting workshops. A lot of promotional material such as posters, pamphlets and calendars were prepared. Booths and kiosks were set up at different locations for mass promotion of the project.



2.17. Virtual Trap – Role-play Game to Prevent Online Child Sexual Exploitation and Abuse

Global Challenge: Globally, 1 in 5 girls and 1 in 13 boys have been sexually exploited or abused before reaching the age of 18. Child sexual abuse and exploitation has a devastating impact on children's physical and mental health. Increased internet availability and advances in technology have allowed offenders to engage in child sexual exploitation and abuse in an unprecedented environment of secrecy and relative anonymity across the globe.

Program: UNICEF Kampala together with ZMQ decided to develop an interactive role-play game based on 'Online Child Sexual Exploitation and Abuse' for Uganda. A research found that offenders of online child sexual abuse are often people that the child already knew. Another study reveals that 12% of Ugandan girls between 12 and 17 years of age were asked to share a photo or video of their private parts and 19% of them had even complied.

Need for SBCC: With increasing cases of 'Online Child Sexual Exploitation and Abuse' in Uganda, it was decided to address children and create awareness through online gaming as they already have access to Internet.

Solution: It was decided to develop an online game with real-life situations with localized characters and language, to make the content more realistic and relatable for the users. The game used an avatar and put them through scenarios echoing real life to create awareness about the issue and build their capacities to mitigate it. The real life situations helped in creating awareness among children about online child protection and empowered them in identifying various risks involved, their consequences, preventive measures and available reporting mechanisms.

Tools: The game has multiple real-life scenarios with choice to make informed decisions. In between, there were also quizzes to test the knowledge of the players. The game also has a feature that can evaluate the change in the knowledge, attitudes and practices of the users.

Implementation: The game was developed under the guidance of UNICEF Uganda and was implemented in collaboration with local CBOs who took the game to children in schools and communities through workshops.

Virtual Trap



2.18. Odisha Gruhabikas Program - Housing for All

Global Challenge: Housing is a basic human need. One of the most daunting challenges the world is facing today is the provision of affordable housing for an estimated three billion persons by 2030, which is needed to accommodate rapid urbanization and to improve the living conditions of one billion residents of slums and informal settlements.

Program: Habitat India's Odisha Gruhabikas Program (OGP) supports the Odisha state's vision of creating a slum-free Odisha by transforming slums into livable habitats. The project provides financial assistance in form of gap-funding to slum dwellers that are eligible to build their homes under the Government of India's program. The additional financial assistance provided through OGP enables the families to complete their homes in a timely and efficient manner.

Need for SBCC: The challenge has been to mobilize marginalized communities and create awareness about the existing housing support services. Financial assistance is being provided to the slum dwellers that are eligible to build their homes. As the literacy rate is low, it was important to make them easily understand the processes to obtain funds.

Solution: The program has provided housing support services and financial assistance to marginalized communities in the Puri and Konark districts of Odisha. Digital talking-comics were developed in the local language to increase financial literacy, demand for services and optimal use of available resources.

Tools: Localized digital stories were developed on housing support services, financial literacy and sustainable construction processes in the local language. The stories were designed with community participation through story-labs and digitized after vetting with the experts. The stories were also downloaded from the play store.

Implementation: Digital stories were disseminated during community meetings in the Puri and Konark districts of Odisha. The community mobilisers conducted door-to-door visits to sensitize the community members about the program through these stories. Digital stories were also made available on YouTube and the mobile App.



Gruhabikas

2.19. The Game Changer - Interactive Role-play Game on SRHR

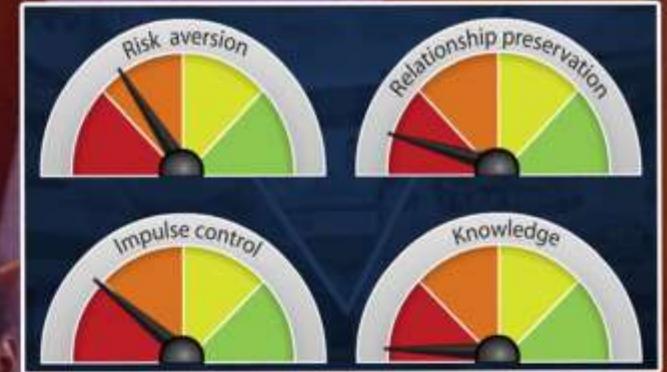
Global Challenge: In low and middle-income countries, adolescents often face a lot of challenges in relation to their SRHR (Sexual Reproductive and Health Rights) needs which include lack of access to information and services; lack of awareness about puberty, sexuality and basic human rights; poverty; and inequitable gender norms.

Program: Under the Bright Futures program of Jhpiego (Johns Hopkins Program for International Education in Gynecology and Obstetrics), it was decided to develop a powerful interactive role-play game to create awareness on SRHR (Sexual Reproductive and Health Rights) among adolescent boys and girls' in Kenya. Jhpiego reached out to ZMQ to design and develop the game. The project collaborated with JKUAT (Jomo Kenyatta University of Agriculture and Technology) of Nairobi to test the game with students and in the communities.

Need for SBCC: SRHR is a very complex issue. After conducting a series of workshops with adolescent girls and boys in Kenya, it was found that an interactive behavioral change tool would be appropriate for the target audience. ZMQ decided to use its tested model - real-world scenarios in a risk-free gaming environment to address the issue of SRHR.

Solution: Game Changer was developed as a mobile-based role-play game where players are posed with real-life situations and they need to take decisions timely. The game captures real scenarios to raise the dilemmas that Kenyan youth often face at some point in their lives. The players need to take the appropriate decision to each situation posed to them. Customized KPIs (Key Performance Indicators) such as risk aversion rate, relationship preservation rate, impulse control rate and knowledge were developed. Those scores are captured in the game to monitor change in KAP (Knowledge, Attitude and Practices) of the users. The performance score of the player is projected on the dashboard which helps them to assess their knowledge, build their capacities and improve their performance.

Implementation: The game was implemented in JKUAT, Nairobi with their students, adolescent boys and girls.



2.20. Half the Sky – Mobile Games on Critical Social Issues for Women and Girls

Global Challenge: Girls and women in developing countries face significant vulnerabilities in areas like healthcare, education and access to finance; as well as challenges including low-literacy rates, high maternal & child mortality rates, etc. Girls are particularly at risk of being trafficked as human traffickers prey on people who are poor, isolated and weak.

Program: 'Half the Sky – Turning oppression into opportunity for women worldwide' is a book written by New York Times editors Nicholas Kristof and Sheryl WuDunn which argues that the oppression of women in the present era is similar to slavery in the past. Half The Sky Foundation (USA), with support from USAID, C-Change and Games for Change, worked with ZMQ to develop ideas of games on social issues for women. They focused on sex trafficking, maternal mortality, sexual violence, microfinance and girls' education based on real stories of women from India, Pakistan, Vietnam and Kenya. These stories also highlighted how bravely they fought to rise above very difficult circumstances and how microfinance and female education can help to reduce disparities.

Need for SBCC: The objective of the project is to create awareness through storytelling and decision-making games and to create a behavior change that retains more girls in schools who were unable to pursue education primarily due to social circumstances. The project also seeks to bring back education into the hands of girls confined to their homes.

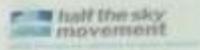
Solution: The games and stories developed for "Half the Sky" were produced in local languages for India and Kenya and for low-cost phone java games which were later scaled to smartphones.

Tools: ZMQ did the full cycle of researching, designing, developing and implementing a set of 4 mobile games in India and Africa to create awareness on women and girl child's basic rights & practices like education, pregnancy, deworming, early marriage, teenage pregnancies and family values in the developing world.

Implementation: The games and stories raised awareness about the oppression of women and girls through community mobilization, workshops and partnerships. Every game had pre and post test questions for evaluation and discussion.



I DON'T KNOW WHAT TO SAY. WE HAVE SOME BOOKS, BUT THEY ARE ALL IN THE WRONG LANGUAGES.



- Connect with CPRS to download the games (<http://www.mirachannel.org/mgames/mits.wml>)
- SMS <McGames> to 56877 to download the games;

Play free games to support
women & girls worldwide

Download
games from the App Store



Available at play.google.com

2.21. Swachhta Chakra - Interactive Role-play Game on Sanitation and Hygiene

Global Challenge: Globally, poor water and sanitation negatively impact public health, especially the lives of the poor, create stunting in children and add to diarrhea deaths. According to a UNICEF report, more than half of the global population does not have access to safe sanitation and still 673 million people practice open defecation.

Program: Launched in 2016, Reckitt Benckiser's flagship program 'Dettol Banega Swachh India' reached out to 100 million Indians with a mission to improve their sanitation and hygiene standards, thus helping them lead healthier lives by 2020. ZMQ partnered with RB and Jagran Pehel's CSR arm to launch this program which saw an opportunity to use a frugal technology solution to solve India's massive sanitation problem and transform the lives of millions of people by deploying games and reinforcing messages in a non-threatening way.

Need for SBCC: The sanitation and hygiene problem has been burdening the economy of the country. Children have been dying due to easily treatable and preventable diseases. The taboos related to sanitation of the communities have been conditioned over centuries. SBCC was the only strategy which would work to change the deep-rooted social norms towards hygiene and sanitation.

Solution: An interactive android-based role-play game, Swachhta Chakra, was developed to create behavior change on hygiene and sanitation. Swachhta Chakra is a multi-level role-play game with an avatar; Radha, who guides the players through different real-life stages to create awareness, build knowledge and inculcate behavior change on issues related to personal hygiene, menstrual hygiene and sanitation. The game also has a quiz at various levels to assess the knowledge of players with increasing levels of difficulty as one advance further in the game.

Implementation: The game was deployed through community health workers who visited house-to-house to disseminate the messages. The game was also played in a group mode through workshops and community sessions. It could also be downloaded from the App store. The game was also adapted in multiple Indian languages like Hindi, Marathi, Gujarati and Bhojpuri.



2.22. IncLudo – Digital and Board Games on Diversity, Equity & Inclusion at the Workplace

Global Challenge: Despite the continual progress made to improve diversity in the workplace, it is still a long way to integrate all members of society into the workforce. India has the lowest participation rate of females among similar emerging economies, with only 29% of women working.

Program: The project ‘IncLudo’ is an initiative to promote the concept of diversity and inclusiveness at the workplace through innovative games and tools. A collaborative project of ZMQ and CRI (SCIRE Association, Paris), the project was supported by the European Union’s EIDHR (European Instrument for Democracy and Human Rights).

Need for SBCC: It is much easier to tackle the sensitive issue of promoting diversity and inclusion using gamification. Games allow people to explore different possibilities, discuss stereotypes and fears in an open manner, and reconsider their position from another point of view. It is an ideal way to inculcate positive behaviors.

Solution: ZMQ organized Game Labs, a hands-on session, to design game concepts on paper through game labs in collaboration with partner organizations and social researchers. In this process, problems were identified and solutions were found to build diverse and inclusive work environments using games. 13 prototypes were created which spanned from video games, board games, digital storytelling and other genres such as visual novels, cooperative multiplayer action games, debates and contests.

Tools: Based on play-testing results, it was decided to move forward with 4 games, namely ‘Hired’ - a board game which identifies hidden bias during the hiring process; ‘Pirate Partage’ - a board game where players communicate with each other based on different disabilities; ‘Pin My State’ - a warm-up board game to learn about one another’s origins; and ‘Another Day’ - a storytelling-based interactive fiction about conflicting cultures in the workplace.

Implementation: With support of an implementing team, the games were disseminated in 16 organizations across India. The games were played both with the HR teams of the corporations and with the employees of the companies to bust their biases and inculcate a positive behavior change.



HIRED

LEVEL 2: POLICE STATION
MALE CONSTABLE WOMAN

Includo

2.23. Pet Puja - Game-based Learning on Complementary Feeding for Rural Mothers

Global Challenge: The period from birth to 2 years of age is critical to the optimal development of any infant. Notably, proper nutrition is essential to sustain rapid growth, which otherwise can lead to issues such as malnutrition. Inadequate complementary feeding impacts the physical and cognitive growth of infants under the age of two.

Program: Infants start receiving complementary foods in addition to breast milk after six months of age. This transition from exclusive breastfeeding to addition of semi-solid and solid foods in an infant's diet is referred to as complementary feeding. The Ananya program, an initiative of BBC Media Action, aims to change the knowledge, attitudes and behaviors of mothers to increase demand to improve health services. The program emphasized the importance of complimentary feeding in a child's growth. ZMQ supported the program by developing tools for CHWs to deliver.

Need for SBCC: The majority of beneficiaries were low literate women. They were following the traditional method of feeding an infant which was tough to change. Through this interactive game, the program aimed to inculcate behavior change by exploring real-life situations and observing the different consequences of diverse actions.

Solution: An interactive gaming application with simulations and animations was developed. It used an avatar, Dr. Anita, which is a fictitious character who guided women through the interactive game-play. The game has an inbuilt calculator which provides child's age and suggestions based on it. The game assisted women in choosing available local ingredients to prepare food for their child. Using simulations, it also trained women to test the thickness of the gruel, and measure the right amount of food for the child. The objective of the game was to emphasize the importance of complimentary feeding for a child's growth and the importance of the frequency and quantity of food given to the child. The toolkit has a robust tracking system.

Implementation: The campaign was conducted through a mobile van. As not all women in the villages were able to come to the van, a set of frontline workers and community volunteers carried the toolkit door-to-door to reach them and made them play the interactive game. The program ran in 8 backward districts of Bihar.



2.24. INFORM – Mobile Platform to Train Children with Cerebral Palsy and Autism

Global Challenges: In smaller towns and rural areas of any developing country, one will hardly find a clinic, a doctor or a nurse working in the field of mental health. This issue is absolutely overlooked. If one gets a chance to talk to anyone affected by a mental illness in these regions, one only gets to hear stories of discrimination and shame.

Program: 'Inform' is an integrated platform to diagnose children with Developmental Disabilities (DD) in low and middle income countries. The key objective of the platform is to change the lives of children with Autism, Cerebral Palsy and Intellectual Disabilities. The mobile-based tool screens children with neuro-developmental disabilities, generates probable diagnoses, creates assessment tools of impairments, generates a summary of unmet needs and creates a system for referral, case monitoring and tracking outcomes.

Need for SBCC: In developing countries, there is a scarcity of specialists in the sector of mental health. Furthermore, in rural and underdeveloped regions of the world, parents and caregivers have no or limited access to skill-training to deal with children affected by cerebral palsy. Interactive training sessions offer increased knowledge and understanding amongst parents and caregivers and improve their skills in caring for their child.

Solution: The mHealth toolkit comprised of over 120 animated and simulated audio-visual clips to train providers, parents and children affected by cerebral palsy. They were trained on different aspects such as brushing teeth, taking a bath, going to the toilet, wearing a shirt, combing hair, drinking water, etc. The toolkit screened a child and categorized the child based on the level of severity of illness. All the training data and the user performance were captured and stored on the backend system.

Implementation: The program is implemented through trainers who provide customized training to caregivers and parents of the affected children. The training is given in groups to make them comfortable. They are also trained to screen children for their specific needs.

Training - Level I



Long Clicked!

2.25. Toys for Change - IoT based Toys to Create Health Awareness and Behavior Change

Global Challenge: The widespread interruption of routine immunization programs globally due to the COVID pandemic has put 80 million children under 1 year old at risk of contracting deadly but vaccine-preventable diseases like measles, polio, hepatitis, DTP (Diphtheria tetanus toxoid and pertussis), pneumonia etc.

Program: ZMQ started a program called 'Toys for Change' based on Internet of Things (IoT) based toys on critical health issues to provide timely information on immunization schedules to communities.

Need for SBCC: As the majority of communities in the rural areas of LMICs are low literate, especially women, they often fail to immunize their children in a timely manner. One of the reasons for low immunization rates is also vaccine hesitancy. In a few of the many communities where ZMQ has been using mobile phones as a medium to deliver information, it has been observed that mobile phones are taken away by men while they go to work. Women are left without a phone and subsequently without information on immunization or other health issues.

Solution: Toys for Change comprises of different IoT based toys like Mama Toy and Tika Toy. They are provided to women to track their pregnancies and the immunization of their babies respectively. Toys act as a reminder-recall system and are connected with the MIRA toolkit. During the pregnancy, the woman uses a Mama Tika to get updated messages related to her pregnancy on a weekly basis. When the child is born, a Tika Toy for immunization is gifted to the mother to track the timely immunization of their babies. The toys communicate with audio in the local language to remind them of the vaccine schedule and its importance. Different types of toys are also developed for other programs such as malnutrition, TB awareness, diversity etc.

Tools: It is an electronically designed tool with a chipset which is embedded with messages containing relevant information in the local languages.

Implementation: A set of IoT Toys are deployed at the Aganwadi Centers. The registered mother/child is given a RFID (Radio Frequency Identifiers) card with their immunization data. Once the card is placed on the IoT toy, it will deliver relevant audio messages to the mother about the importance of immunization and its schedule. Later, the toy will also deliver important messages related to nutrition and the benefits of consumption of poultry.



2.26. Youth-LIFE - Digital Platform on Life-Skills Development for Adolescents in School

Global Challenge: With the expansion in channels of communication, information and knowledge, young people are exposed to various sources of information through electronic media. It is important that young people gain skills and confidence to seek age appropriate, accurate and necessary information in order to reduce their age-related vulnerabilities and risks.

Program: In 2012-13, ZMQ in partnership with CEDPA and MacArthur Foundation, developed Youth-LIFE program. The objective was to reach out to girls and boys during early adolescence on Life-skill issues, which is a critical phase of their development and a right time to build skills and positive behaviors on Sexual and Reproductive Health.

Need for SBCC: New technologies can assist teachers and facilitators to share information in a non-hierarchical and unbiased manner thus creating an enabling environment for frank discussion with adolescent girls and boys for improved knowledge and decision-making around critical life choices. Gaming was decided as the best option for this.

Solution: A comprehensive interactive game-based platform on sexual and reproductive health rights was designed with different modules. Each module had two components, a group learning component for the entire classroom (approximately 40 students) and a self-paced gaming component for individual learning.

Tools: Youth-LIFE curriculum comprised of 4 modules - Life Skills, Growing Up, Healthy Habits and Relationships, further divided into 2-4 topics each. Some of the topics were: understanding the changes during adolescence, transition to adulthood, understanding feelings, relationships, communicating with parents, feelings of attraction, SRH rights, teen pregnancy, marriage, sexual decision-making, reproductive infections and sexually transmitted infections.

Implementation: The program was implemented in Delhi and Jharkhand in over 600 schools both in English and Hindi, and reached out to approximately 30,000 adolescent girls and boys by 2015. The curriculum was further expanded to include topics like child abuse, cyber bullying, gender discrimination and gender-based violence. They were made available through CDs both in English as well as in Hindi.



Escape to Victory

2.27. mHealth Training - Training & Capacity Building of Health Workers, Midwives & Paramedics

Global Challenge: Globally, there is a critical shortage of health workers and that too especially in low and middle income countries. As per WHO, there is an additional 10 million nurses and midwives need to be trained by 2030.

Program: In 2011, ZMQ started a program to assist governments, international agencies and INGOs to develop digital training programs for CHWs, Nurses and Paramedics. Thus far ZMQ has developed more than 60 digital training programs to train health workers, midwives and paramedics. ZMQ also helps in dissemination and conducts hands-on training using its ToT (Training of Trainers) strategies.

Need for SBCC: Digital training strategies like training aids, mHealth tools, interactive simulations, role-play games and training digital stories have a potential to increase the competence of trained CHWs, nurses and paramedics in rural areas.

Solution: Some of the selected digital training programs are:

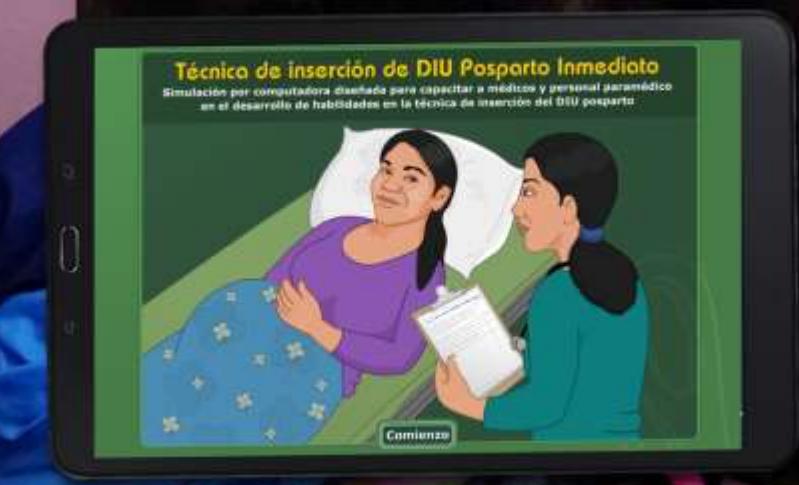
PPIUCD m-Trainings: ZMQ assisted JHPIEGO (Johns Hopkins Program on International Education on Gynaecology and Obstetrics) to revitalize post-partum family planning using ICTs and mobile phones. Programs were also adapted for different geographies & languages such as Spanish, Portuguese, French, Amharic and Bahasa.

HBPNC m-Trainings: ZMQ developed a Home Based Post Natal Care (HBPNC) training system to equip CHWs with the essential skills of providing support to mothers and newborns under a program that was supported by UNOPS and NIPI (Norwegian India Partnership Initiative).

Pre-Eclampsia / Eclampsia Management: ZMQ developed a training program for nurses on decision-making and administration of magnesium sulphate ($MgSO_4$) to manage Pre-Eclampsia and Eclampsia in pregnant women to contribute to the achievement of competency in pre-eclampsia management.

Implementation: The implementation has been done in multiple modes: online, digital/mobile tools, hands-on trainings and also organized using ToT (Training of Trainers) strategies in the facilities.

Impact: In the last 12 years, ZMQ has directly provided training to nearly 350,000 CHWs in India, Africa and Latin America; and extended training support to over 40,000 providers like nurses, paramedics and lab technicians.



2.28. Freedom Polio – Community-driven Polio Program using Mobile Technology

Global Challenge: In 2002, India was one of the 10 countries known to have ongoing poliovirus transmission. India was characterized by areas with high population density, low routine immunization coverage, sub-optimal sanitation, and therefore intense indigenous WPV (wild poliovirus) transmission.

Program: ZMQ partnered with Core Group Polio Program to develop a community-driven health management strategy using technology. ZMQ's Freedom Polio program was developed as a mHealth solution.

SBCC Need: The traditional campaign approach to immunization, although achieving high levels of coverage, was not effective in wiping out these pockets of persistent transmission. It was decided to use social mobilization in high-risk areas of Uttar Pradesh to develop various materials for training using SBCC strategies.

Solution: Freedom Polio addressed polio immunization, routine immunization and pregnant women in 13 high-risk districts in India based on 3 pillars - strengthening routine immunization activities (RIA), strengthening supplementary immunization activities (SIA) and social mobilization campaigns, which were embedded with technology.

Tools: The Universal MIS system carried the data of the Polio management system and captured minute-by-minute details of the ground. Community Mobilization Coordinators (CMCs) were involved in supplementary & routine immunization activities, household mapping, registrations, follow-up of pregnant women and coordination with ANMs and ASHA workers. Micro-planning, social mobilization, organizing multi-group meetings and virtual village mapping were also done.

Implementation: The project was implemented through a network of 1300 CMCs in 56 Blocks of 13 high-risk districts in Uttar Pradesh and West Bengal to promote acceptance of the oral polio vaccine (OPV), supplementary immunization activities (SIA) and routine immunization (RI) coverage. The technology phase of the project reached over 1.2 million households, covering over 2.8 million children (under 5) for complete immunization in the first year after implementation. The project also supported over 250,000 pregnant women.



2.29. Mobile Mahatma - Promoting Principles of Non-Violence, Truth and Equality

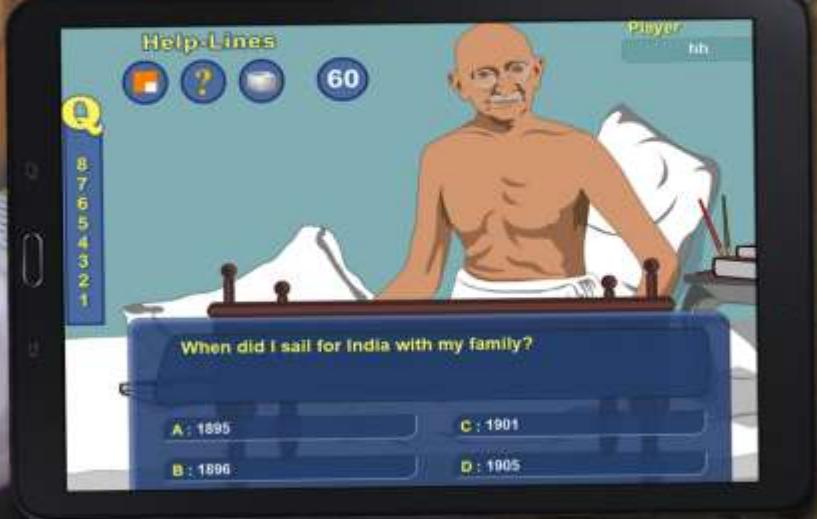
Global Challenges: Equality is about ensuring that every individual has an equal opportunity to make the most of their lives and talents. No one should have poorer life chances because of the way they were born, where they come from, what they believe, or because they have a disability. Equality recognizes that historically, certain groups of people with certain characteristics such as race, caste, gender, disability, sex and sexual orientation have experienced discrimination.

Program: Launched in 2005, Mobile Mahatma is an innovative concept to promote local Indian content on mobile devices. Mahatma Gandhi, champion of non-violence and truth, promoted equality of mankind, which is indeed of great relevance to this day.

Need for SBCC: ZMQ took an initiative to develop the first of its kind concept to bring Mahatma Gandhi alive on mobile phones to reach out to youth and inculcate in them the importance of equality, non-violence and dignity. This is an innovative way to spread the principles of non-violence, peace and equality of Mahatma Gandhi. It is an attempt to bring alive the important events in the life of a man who became one of the greatest apostles of peace in the modern times.

Solution: The package Mobile Mahatma is comprised of two applications - a mobile film on Gandhi and an interactive quiz with an avatar of Gandhi. The film comprises 10 episodes where each one of them describes the turning point in the life of Mahatma Gandhi. The tools were developed in J2ME, BREW, Symbian and Flash Lite for a vast range of mobile handsets, both colored and black & white.

Implementation: The program was distributed through Reliance Mobile and reached over 170,000 users. It was also implemented in more than 120 schools across India.



2.30. Connect-2-Climate: Creating Awareness on Climate Change using Games & mLearning

Global Challenge: The average temperature of the Earth's surface is now about 1.1°C warmer than it was in the late 1800s (before the industrial revolution). The last decade (2011-2020) was the warmest on record, and each of the last four decades has been warmer than any previous decade since 1850. The consequences of climate change now include, among others, intense droughts, water scarcity, severe fires, rising sea levels, flooding, melting polar ice, catastrophic storms and declining biodiversity.

Program: Connect-2-Climate (C2C) is a social initiative of ZMQ to create awareness on climate change, raising environment education and promoting sustainable development using games, edutainment and ICT tools & solutions. C2C addresses challenges of global warming among youth, school children, industrial workers, corporate managers and policy makers. ZMQ forged partnerships with corporations and non-profits. Some of them were TERI, Philips, Intel, Reliance Communications, Ministry of Foreign Affairs (Denmark) and British Council.

Need for SBCC: Climate change is a pressing problem which impacts the planet, communities, weather, agriculture and all the resources available. Social and behavior change communication strategies can make people understand climate change and help shift everyday choices towards more sustainable practices to inculcate positive change.

Solution: A wide variety of digital strategies were developed for the initiative such as ICT tools, applications, games, and e-training to create awareness on Climate Change, raise Environment Education and promote Sustainable Development. C2C uses capacity-building tools like interactive training kits, training-of-trainers (TOT), monitoring & evaluation systems, games, digital stories and other outreach programs to reduce the carbon footprint. C2C reaches to schools, corporations, institutions, governments and NGOs and their staff through various innovative solutions.

Tools: The mobile phone games of the C2C initiative comprise five different applications - three mobile games involving different mindsets and psychologies of mobile users, and two mobile learning applications on climate change. More games were developed in regional languages to have a greater outreach and impact. Number of school-based initiatives like interactive desktop games, edutainment systems and eLearning solutions on environmental education were developed. One of them was Climate Mela, an interactive eLearning program to create awareness. It also had interactive quiz shows for schools on various themes related to climate change, environment and green technologies. Many more initiatives have been developed under C2C such as on animal conservation and bio-diversity. Some of them were:



Renewable Energy Resources



Micro Hydro



Solar Photo Voltaic



Bio-mass



Bio-diesel



Diesel Generator



C2C Mobile Games: ZMQ partnered with Intel, Philips, TERI, Reliance Communications, Ministry of Foreign Affairs (Denmark) and British Council

Climate Mela: ZMQ partnered with TERI

Renewable Energy Courseware: TERI

Copenhagen Challenge: ZMQ partnered with Danish Government during COP-17

The Great Save: ZMQ partnered with British Council for whole of South Asia.

Climate Buddy: Climate Awareness Buddy for Tetra Pak staff across the world.

Farmer's Suicide: YST based story for SBCC awareness on farmers' plight due to drought and loans.

Climate and Health: Rural women as grass-root data collectors on climate-induced health risks to build resilience.

Sustainable Development Solutions: C2C provides a unique opportunity for institutions, government, NGOs and international development agencies to create new sustainable development ICT tools, applications and solutions. The prime focus areas of development are surveillance, forecast & alerts, disaster management, risk assessment, remote data capturing and location-based study, assisting researchers, scientists, farmers, fishermen, and environmentalists in their core activities.

Implementation: The initiative reaches out to youth through mobile phone games & applications, schools through various environmental education programs, assists industries and corporations with various outreach & capacity building initiatives, develops ICT applications & solutions for sustainable development, and builds innovative partnerships with industries. C2C also helped in building the capacities of industries & corporations by developing and disseminating interactive training kits, training-of-trainers (TOT) programs, advanced learning technologies, monitoring & evaluation systems, serious games, animation films and other outreach programs to reduce carbon footprint. It fosters sensitization of management, staff, and the workforce through various innovative interactive learning to create climate change awareness.



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