

HealthRise

Advancing HealthRise for Sustainability

PROJECT REPORT

Implemented by



With Support From



Funded by

Medtronic Foundation

Technical Partner

ABT Associates

Implementing Partner

MAMTA Health Institute for Mother and Child, New Delhi

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We sincerely thank the Public Health Facilities for their support during the course of implementation of the project in the intervention area. Reaching out to the masses would not have been possible without support of Front Line Health Workers- ASHAs and ANMs.

We strongly feel the project would not have succeeded without the contribution of MAMTA project team especially the State Program Coordinator, District Coordinator, Block Supervisor, Finance and Admin Staff and Outreach Workers. Everyone has contributed immensely in terms of knowledge, experience and providing their valuable time.

Last and not the least, the project would have been incomplete without the participation of our target group i.e. people at risk of developing Diabetes or Hypertension as well as patients suffering from Diabetes or Hypertension. Much of our learning throughout the project period has come through them by just being with them.

MAMTA-HIMC extends its heartfelt gratitude to everyone at Medtronic Foundation and ABT Associates who generously funded and guided us and gave an opportunity to work. In every step of this journey, ABT Associates gave us freedom to work and had faith in us. It was great learning experience with Medtronic Foundation and ABT Associates and we hope to strengthen our partnership.

Thank you.



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GLOSSARY

ANM	Auxillary Nurse Midwife
ASHA	Accredited Social Health Activist
CAC	Country Advisory Committee
CHAI	Catholic Health Association of India
CHC	Community Health Centre
CLCP	Community Life Competence Process
CoC	Continuum of Care
CVD	Cardiovascular Diseases
DM	Diabetes Mellitus
FLHW	Front Line Health worker
GNM	General Nurse Midwife
HTN	Hypertension
IEC	Information, Education and Communication
IVRS	Interactive Voice Response Service
MIS	Management Information System
MO	Medical Officer
NCD	Non Communicable Disease
NPCDCS	National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke
OOPE	Out of Pocket Expenditure
OPD	Out Patient Department
ORW	Out Reach Worker
PHC	Primary Health Center
PSG	Patient Support Group
RBS	Random Blood Sugar
RKS	Rogi Kalyan Samiti
ROL	Review of Literature
SALT	Stimulate, Appreciate, Listen, Transfer
SMS	Short Message Service
WHO	World Health Organization

MESSAGE FROM EXECUTIVE DIRECTOR

Since inception in 1990, MAMTA-Health Institute for Mother and Child (MAMTA-HIMC) has strived to empower the underserved and marginalized individuals and communities through gender sensitive and participatory approaches for achieving optimal and sustainable health and development.

MAMTA is doing everything to promote greater understanding of the socio economic determinants that affects health conditions. Recognizing the rising burden of non-communicable diseases in India, MAMTA has implemented project HealthRise, funded by the Medtronic Foundation designed to expand access to care for cardiovascular disease (CVD) and diabetes among underserved populations in Shimla, Himachal Pradesh. Even though NCDs have been one of the health priorities of Govt. of India and various state governments, it has not been given proper attention it needs either by the community or health system.

The project HealthRise has reached out to about 58,000 vulnerable and marginalised residing in Theog, Mashobra and Krishna Nagar ward of Shimla in Himachal Pradesh. Through this project MAMTA has impacted lives of the deprived by providing comprehensive care for better management of Diabetes as well as Hypertension. This has been done through education sessions, counselling, screening, linking to treatment, lifestyle modifications, follow-ups and continuum of care.

Above all it has built a relationship of trust with the communities and established a screening and referral mechanism in the community for Diabetes and Hypertension.

Science and evidence-based best practices must prevail in the delivery of prevention and treatment of NCDs. Measures must be taken to ensure that every individual irrespective of his/her socio economic or marital status have access to quality health services.

The project team has put in hard work with passion in meeting all the project objectives and discovered innovative processes through every step for achieving successful outcomes.

I hope you find this report useful to build evidence and design programs of Diabetes and Hypertension to reach out to vulnerable in the community.



Dr Sunil Mehra
Executive Director

EXECUTIVE SUMMARY

HealthRise, a five-year, \$17 million global effort funded by the Medtronic Foundation designed to expand access to care for cardiovascular disease (CVD) and diabetes among underserved populations in targeted geographies in Brazil, India, South Africa and the United States. To address the growing burden of CVD and diabetes in India, HealthRise supported two, three-year community-based demonstration projects specifically designed to expand access to care and management of CVD (particularly hypertension) and/or diabetes for underserved populations. HealthRise India had an explicit focus in two districts: Udaipur in Rajasthan and Shimla in Himachal Pradesh.


MAMTA implemented the three-year project from Oct 2015 to Oct 2018 in Matiana (Theog), Mashobra block and one urban ward Krishna Nagar of district Shimla in Himachal Pradesh and covered *432 villages*. A team of 22 at MAMTA worked hard to ensure successful demonstration of HealthRise in Shimla, Himachal Pradesh.

MAMTA used a mix of communication activities to increase awareness of Hypertension and Diabetes and to mobilize community members to attend HealthRise screening camps. *253 Panchayat level Multi-stake holder's meetings, house to house visits, 250 Street plays and Radio campaign* were done to mobilize *58,172* people across the intervention area. State team along with Out Reach Workers (ORWs) *organized 336 Screening Camps* with the help of Accredited Social Health Activists (ASHAs), and Auxiliary Nurse Midwives (ANMs) in villages and government sub-centers to identify and refer individuals suspected to have hypertension and/or diabetes to government primary health centers (PHCs) and sub-centers for confirmatory diagnosis and treatment initiation.

MAMTA with the help of FLHWs *screened 22,053* for both Diabetes and Hypertension of which *2798 i.e. 12.7% cases were identified as suspects* for either of the diseases. After the screening, suspects identified during screening were followed up for confirmatory diagnosis by MAMTA and could successfully ensure 66% of reach from identified suspects to health facility for confirmatory diagnosis. Out of the cases reached and confirmed with either of the diseases *85.6 percent i.e. 1578* formed the patient pool. These patient were then followed up as per NPCDCS guidelines on quarterly basis. The follow ups were both facility based as well as household level follow up to ensure routine check ups and treatment adherence. Out of the 1578 patient pool under follow-up, *34.5% (544) Cases* successfully met their treatment targets i.e. showed reduced blood pressure as well as blood sugar levels when compared with their previous values.

MAMTA *capacitated 30+ medical officers and 350+ FLHWs* for better management of NCDs using the pool of master trainers under the project. In order to improve awareness in the community *IEC material like pamphlets, posters and eight audio-visual Animations* were developed as part of the project. MAMTA also undertook *technology based interventions like e-Clinics, IVRS and MIS* along with an m Health Application to ensure quality implementation of the project.

Community Empowerment and Behavior Change was done by establishing Patient Support Groups and conducting *376 PSG meetings* as well as *introducing SALT technique* of Constellation.




The acronym SALT stands for Stimulate, Appreciate, Listen, Learn, and Transfer. Across 14 villages, 136 patients with uncontrolled blood pressure as well as uncontrolled levels of blood sugar were involved and after the completion of the intervention the test results showed 53 percent of the total had controlled blood pressure as well as sugar level.

MAMTA convened a *steering committee* of various stakeholders to provide direction and advice throughout the duration of the project. Additionally, MAMTA also had engaged key stakeholders from the state governments and the district governments to advocate for policy level changes and scale up of HealthRise. The key outcomes of the policy advocacy were:

1. To begin the reporting at all the levels, *NCD Registers* were distributed to all the health facilities along with the reporting formats of NPCDCS.
2. *Confirmatory Diagnostic Facility* was made available in two of the intervention health facilities.
3. Civil Hospital, Theog, Sunni and Junga started '*NCD Day*' in their hospitals on a dedicated day every month, where people could undergo diagnosis and get medicines.

MAMTA and HealthRise have integrated with the public health system and built a foundation for sustainability and scale up of HealthRise activities. Government has shown keen interest on adopting HealthRise interventions and has issued a letter to integrate and adapt the innovative products of HealthRise.



BACKGROUND

Following public health successes in the prevention and treatment of communicable diseases, and combined with increasing life expectancy in most countries, non-communicable diseases (NCDs) have become the leading cause of death globally, accounting for nearly 40 million deaths in 2015.[1] The burden of NCDs has disproportionately increased in low- and middle-income countries (LMICs), which are also more likely to face challenges due to developing health systems and limited infrastructure.

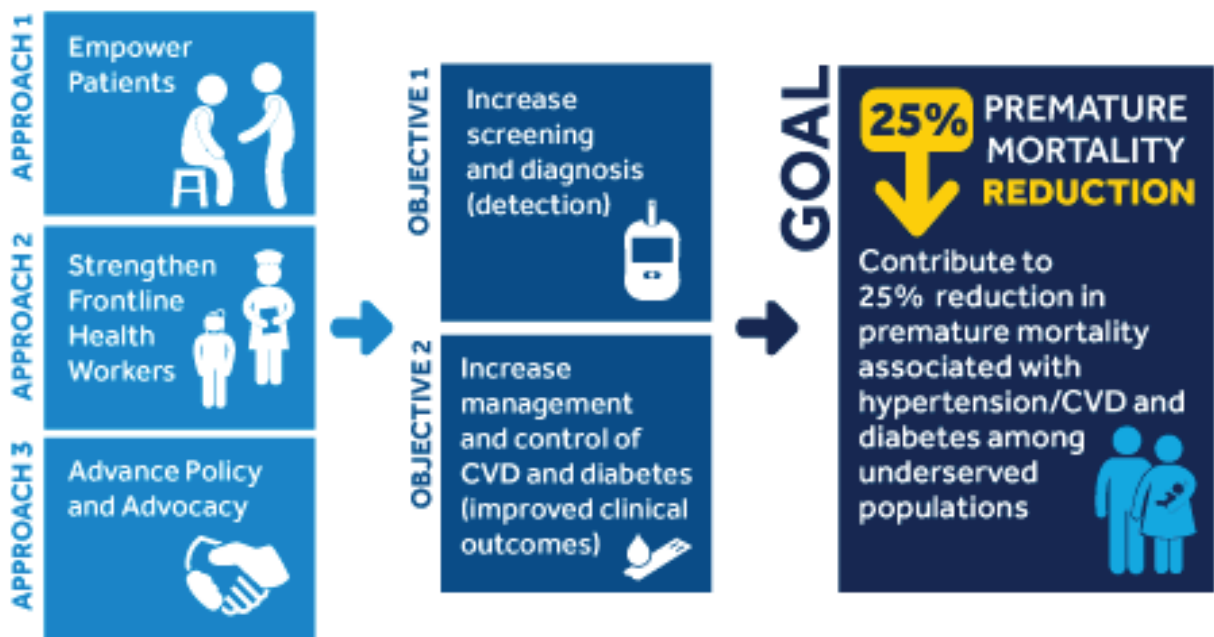
India's burden of non-communicable diseases (NCDs) is escalating. NCDs typically present in individuals aged 55 years or older in many developed countries, but their onset occurs in India a decade earlier (≥ 45 years of age).[2,3] Exacerbating this problem are the issues of multiple chronic conditions and the fact many remain undiagnosed due to lack of awareness and insufficient health-care access. At the same time, infectious and parasitic diseases still pose substantial challenges to the public health system in India, resulting in a double burden of disease and an important share of the global burden of disease. Although the NCD burden has grown, India still does not have sufficiently detailed data on NCDs for research and policy purposes.

To advance community-based solutions to improve NCD outcomes in underserved populations, a broad coalition of partners from communities, governments and donors launched HealthRise, a five-year demonstration project designed to increase detection, management, and control of diabetes and cardiovascular diseases (CVD) in support of—and together with—local health systems and communities in four countries: South Africa, India, Brazil, and the United States. The initiative builds on World Health Organization (WHO) and Sustainable Development Goals (SDGs) objectives, which emphasize NCDs as a global priority and recommends the use of effective community-based interventions.[4,5] HealthRise seeks to further this mission by implementing and evaluating innovative community-based strategies for diagnosing, treating, and managing CVD and diabetes, thereby, creating an evidence base for strategies that improve health outcomes. [6]

ABOUT HEALTHRISE

HealthRise, a five-year, \$17 million global effort funded by the Medtronic Foundation designed to expand access to care for cardiovascular disease (CVD) and diabetes among underserved populations in targeted geographies in Brazil, India, South Africa and the United States. HealthRise aims to contribute to the World Health Organization’s goal of reducing premature mortality associated with chronic, non-communicable diseases (NCDs) by 25% by 2025 through the implementation and evaluation of innovative, sustainable and scalable community-based demonstration projects. HealthRise is one such demonstration project to showcase sustainable and scalable community-based interventions. HealthRise followed the strategic approaches as depicted in figure 1, to empower patients, strengthen frontline health workers, and advance policies to increase the detection, management and control of CVD or diabetes and enable people living with chronic diseases to successfully manage their condition over the long term.

Figure 1: Depicts the objectives and primary approaches to reach this goal



HealthRise is guided by the Medtronic Foundation’s holistic view of existing healthcare systems and the barriers that interrupt the continuum of care. Thus, in all four countries, HealthRise is aligned with the Medtronic Foundation’s Continuum of Care (CoC) model (Figure 2), which provides a framework for the delivery of optimum health care to patient populations that is evidence-based, comprehensive, and patient-centered. The CoC maps the pathway of an integrated system of care that guides and tracks patients over time through a comprehensive array of health services spanning all levels of intensity of care. HealthRise uses this framework as that ensure end-to-end solutions for patients and health systems.

HEALTHRISE INDIA

NCDs account for approximately 60% of total deaths in India, according to the World Health Organization (WHO). More than 21% of the Indian population has raised blood pressure and 9.1% has diabetes, and the prevalence of these diseases is growing. However, a significant portion of these individuals are not aware of their condition. Meanwhile, those who have been diagnosed with these conditions face high costs for care and treatment, with many low income households either falling further into impoverishment due to catastrophic spending or forgoing care altogether. The WHO estimates that Indian households spend up to 25% of their annual income on caring for a family member with diabetes.

To address the growing burden of CVD and diabetes in India, HealthRise supported two, three-year community-based demonstration projects specifically designed to expand access to care and management of CVD (particularly hypertension) and/or diabetes for underserved populations. HealthRise India had an explicit focus in two districts: Udaipur in Rajasthan and Shimla in Himachal Pradesh. HealthRise Partner, IHME, conducted a Review of Literature (ROL) and a comprehensive needs assessment in Udaipur and Shimla districts to identify supply-side and demand-side barriers across the Continuum of Care, identifying access-related barriers, service delivery gaps, community requirements, and opportunities within the health systems.

HealthRise has used the findings from the ROL and needs assessment to engage more than 150 key stakeholders from national, state, and local government, the private sector and civil society to gain insights and recommendations about the design of interventions.

Figure 4: Map highlighting target districts in India



A Country Advisory Committee (CAC) was established comprising of a multi-stakeholder expert group to guide the India project and identify opportunities to integrate and build partnerships, acting as a catalyst to foster local ownership. The CAC also worked towards influencing policy and advocacy that allows scalability and sustainability of successful project elements.

In November 2015, two organizations were selected to implement HealthRise India grantees: the Catholic Health Association of India (CHAI) in Udaipur, Rajasthan and the MAMTA Health Institute for Mother and Child (MAMTA) in Shimla, Himachal Pradesh.

HEALTHRISE IMPLEMENTATION BY MAMTA

Project Duration- Oct 2015- Oct 2018

Sub-Geography

The project was implemented in Matiana (Theog), Mashobra block and one urban ward Krishna Nagar of district Shimla in Himachal Pradesh. In total about 432 villages were covered.

Challenges of the Intervention Area

The majority of the population in Shimla lives in rural areas (75%), and about two-thirds are engaged in agricultural activity. The literacy rate in the district was 83.6 % in 2011, and the unemployment rate was 22% in 2016. The project targeted individuals between the ages of 15 to 70 years in the intervention blocks summing up to a total population of 220,380.

A number of local factors makes chronic care service delivery and access challenging in Shimla. From the supply side, the district has insufficient human resources for health and health infrastructure for chronic diseases. For example, confirmatory tests (venous blood testing) for diabetes are only available in 5 of the 30 primary health facilities. Due to this lack of infrastructure for diabetes and hypertension at sub-centers (the lowest unit of the health system), people prefer to go to higher level health facilities for their day-to-day medical needs. In other cases, traditional healers are often the first point of contact for health issues rather than public health facilities, due to a distrust in the public health system.

Meanwhile, a mountainous terrain, large distances between villages and houses, and limited transportation options make access to health services challenging. Seasonal factors also affect health service demand and supply. Heavy snowfall during the winter and apple picking in August and September affect the number of people who attend screening camps and the number of frontline health worker follow-up household visits that are feasible. Understandably, people in this area generally prioritize their livelihoods over their health, which can make diagnosis and treatment adherence challenging, particularly for chronic diseases that are asymptomatic and progress slowly.

Team Deployed

A team of 22 at MAMTA worked hard to ensure successful demonstration of HealthRise in Shimla, Himachal Pradesh. 19 out of the total 22 team members were stationed in the state office to ensure quality implementation of the project. The team of 22 included the following as described in Table 1:

Table 1: HealthRise Project Team MAMTA

<i>Project Team</i>	
Dr Sunil Mehra	Strategic Support
Dr. L S Chauhan	Senior Advisor
Mr. Vinayakan E.K	Project Director
Dr. Harsha Tomar	Program Manager
Mr. Chandrashekhar	MIS Manager
Dr. Gaurav Sethi	State Program Coordinator
Dr. Manisha Bhatia	District Coordinator
Mr. Rajinder Bragta	Block Coordinator
Ms. Bhawana Verma	Data Entry Operator
Mr. Radhakrishnan	Admin and Finance Assistant
Mr. Ramesh Chand	Out Reach Worker
Ms. Himani Sharma	Out Reach Worker
Ms. Salochana Verma	Out Reach Worker
Mr. Anil Sharma	Out Reach Worker
Ms. Renu Sharma	Out Reach Worker
Ms. Priyanka Sharma	Out Reach Worker
Mr. Yograj	Out Reach Worker
Ms. Sarla Sharma	Out Reach Worker
Mr. Arun Shandil	Out Reach Worker
Ms. Monika	Out Reach Worker
Mr. Virender	Out Reach Worker
Mr. Hemant Kumar	Out Reach Worker
Mr. Prinkal Sharma	Out Reach Worker
Mr. Tarun Sharma	Out Reach Worker

HEALTHRISE INTERVENTIONS

Community Mobilization

MAMTA used a mix of communication activities to increase awareness of Hypertension and Diabetes and to mobilize community members to attend HealthRise screening camps. To begin with **253 Panchayat level Multi-stake holder's meetings** were organized followed by **house to house mobilization** by conducting home visits by outreach workers (ORWs) was done. A total of around **250 Street plays** were organized with the help of a theater troupe. A **Radio campaign** was also run to mobilize the entire population residing in the intervention area. In total **58,172 people were mobilized** through the above different communication activities.



Photograph 1: ORW conducting house visits



Photograph 2: Panchayat Level Meetings



Photograph 3: Glimpse from street Play



Screening camps

State team along with Out Reach Workers (ORWs) organized **336 Screening Camps** with the help of Accredited Social Health Activists (ASHAs), and Auxiliary Nurse Midwives (ANMs) in villages and government sub-centers closest to the target community to identify and refer individuals suspected to have Hypertension and/or Diabetes to government primary health centers (PHCs) and sub-centers for confirmatory diagnosis and treatment initiation. These screening camps served as an opportunity to educate communities about these diseases and their preventive measures.

As part of the screening process, the ORWs/ASHAs/ANMs collected demographic details and contact information, measured waist circumference, height, and weight, checked blood pressure (BP) with a sphygmomanometer/digital BP machine, conducted a random blood sugar (RBS) test using a glucometer, provided counseling, and referred those with high blood pressure and/or blood sugar to the nearest government health center. Collected data were entered into the 'Client screening form for screening activity'.



Step 1: Registration



Step 2: Height, weight and waist circumference measurement



Step 3: Blood Pressure Check Up



Step 4: Blood Sugar Check Up



Step 5: Referral and Counselling

MAMTA started the screening camps for community members for diabetes and hypertension since June, 2016. The camps were conducted at sub-center level so as to cover maximum population. Building on the gains it achieved and to increase the screening coverage MAMTA planned to test the feasibility of cluster based house-to-house screening in the few of the intervention blocks. The cluster based house-to-house screening proposed was in line with NPCDCS Strategy of mass screening.

The proposed screening plan strengthened the community processes like mobilization, follow-ups along with line-listing of Non-Communicable Diseases (NCD) patients with Front Line Health Workers (FLHWs). This also helped in line listing of patients and linking them to treatment and care. In addition, it led to integration of health promotion, prevention, screening and referral services. On the other hand, using camp based approach we were able to cover more women in a specific age group, relatively old aged males and youth.

However, our experience showed that the working males and females are not able to attend the camps as they are engaged in their job during day time.

While the house-to-house screening camps were organized on weekends, in the evenings and mornings as this was more convenient for the working class males and females. Through this approach we were able to reach out to the population who were left out in the previously organized screening camps. Since the target was to cover 60% of the population of which some would have been covered in the camps and remaining was then covered through house-to-house screening.

MAMTA with the help of FLHWs **screened 22,053** for both Diabetes and Hypertension of which **2798 i.e. 12.7% cases were identified as suspects** for either of the diseases. After the screening, suspects identified during screening were followed up for confirmatory diagnosis using an innovative follow up mechanism developed by MAMTA to ensure maximum percentage of reach to referral facility for confirmatory diagnosis v/s referral in which we followed any suspect for a maximum of four times within three months of screening camp organized and could successful ensure **66% of reach from identified suspects**.

National Program for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) guidelines were followed for regular follow up with patients to ensure treatment adherence and lifestyle modifications in diet, physical activity etc. The follow up visits by ORWs along with ASHAs happened at both health facility level as well as household level. Figure 5 shows both the follow up mechanisms for suspects as well as patients.

Figure 5: Follow Up Mechanism for Suspects and Patients

Suspected Cases	Patients
<p>Four Follow-ups</p> <ol style="list-style-type: none"> 1. First Follow up (within 7-15 days of camp) 2. Second follow up (30-45 days of camp) 3. Third Follow up (75 days to 90 days of camp) 4. Fourth follow up (105- 120 days of camp) 	<p>Follow-up as per NPCDCS</p> <ol style="list-style-type: none"> 1. First follow up- (30-45 days of camp) 2. Regular Follow up after every 3 month

Health center Follow Up Visits

Approximately after two to four weeks post-screening, ORWs visited the health centers to which they had referred the suspected positive individuals to confirm whether they have visited for confirmatory diagnosis. The ORWs cross-checked patient names in their 'follow-up database' (generated from the screening camps) with those in the health center registers, and also checked the referral slips at the health facility level if made available. As mentioned earlier, 66 percent cases reached health facility for confirmatory diagnosis. Out of the cases reached and confirmed with either of the diseases **85.6 percent i.e. 1578 formed the patient pool** and post-diagnosis the ORWs visited health facilities to check hospital records to find out if the patients were coming of routine tests and checkups and if they adhered to the treatment advice given by the doctor.

Follow-up Household Visits

Approximately one to four weeks post-screening, ORWs and ASHAs visited the homes of referred individuals who have not yet visited the health center to motivate them to take this next step. As part of this household visit, the ORW/ASHA explained the individual's screening result, advantages of early initiation of treatment, and described potential complications related to delayed treatment. In preparation for and during this household visit, the ORW/ASHA used a HealthRise-developed script with strategies for motivating individuals who may be reluctant to visit the health center for confirmatory diagnosis.

Post the diagnosis, follow-up visits were conducted by ORWs and ASHAs in the homes of Hypertensive and Diabetic patients. Once a referred individual received a positive diagnosis at a health center, the ORWs/ASHAs conducted at least five household visits for that patient over the course of approximately 15 months. During these visits, the ORWs/ASHAs checked the patient's adherence to their treatment regimen, ensured if the patient has been visiting the health center regularly, and provided counseling, education, and encouragement for proper management of their disease condition(s). The ORWs/ASHAs used a HealthRise-developed script which described various patient scenarios, and provided comprehensive guidance on handling these scenarios and encouraged patients to better manage their disease condition(s). Out of the 1578 patient pool under follow-up, **34.5% (544) Cases** successfully met their treatment targets i.e. showed reduced blood pressure as well as blood sugar levels when compared with their previous values.

Project Success at a Glance



58, 000+ People Mobilized



22, 000+ People Screened



13% (2798) Suspects Identified



66% (1844) Suspects Reached for Confirmatory Diagnosis



86% (1578) Cases Followed Up for Treatment Adherence and Lifestyle Modifications



34.5% (544) Cases met Treatment Targets

Training and Workforce Development

HealthRise India developed comprehensive Diabetes and Hypertension training modules by revising the existing government training modules with the support of Project HOPE. These modules are based on the new government guidelines and were extensively reviewed by national and state government officials. ABT Associates India and Project HOPE trainers used these modules to train **54 Master Trainers** who later facilitated the trainings of Front Line Health Workers and Medical officers. The scale and scope of this training is unique in India. The key objectives of conducting these trainings were:

1. To enhance the skills, capacity building of the Frontline health workers, Medical Officers on Non Communicable Diseases (specially Diabetes and Hypertension)
2. To impart the knowledge regarding risk factors, symptoms, complications, treatment and counselling for Non Communicable Diseases.

Figure 6: Capacity Building of MOs and FLHWs

Medical Officers	Front Line Health Workers
30+ Medical officers trained	350+ FLHWs Capacitated
Better equipped for adequate management of NCDs	Improved knowledge on risk factors, symptoms, complications, treatment and counseling for NCDs



Photograph 4: Training of MOs



Photograph 5: Training of FLHWs

IEC Developed

Under the project, MAMTA developed IEC material in the form of pamphlets and posters for HealthRise workforce as well as Government medical and paramedical staff including MO and FLHWs. In order to improve awareness in the community, **Pamphlets** were distributed during community mobilization activities, screening camps, household visits as well as follow up meetings/counselling sessions which informed them on risk factors, signs and symptoms and complications of Diabetes and Hypertension. **Posters** with information on risk factors, symptoms, cut off values for Hypertension and Diabetes were pasted on the walls of all the intervention health facilities and Panchayat Ghar for quick reference as well as improving awareness on Diabetes and Hypertension. In addition, **eight Audio-visual Animations** have been developed under the project on different themes associated with screening and treatment adherence. The themes of these AV are risk factors, call to action, complication management of Diabetes and Hypertension and myths and misconceptions.

Figure 7: Pamphlet developed to improve community awareness



Figure 8: Posters pasted in Public Health Facilities



Technology Based Interventions

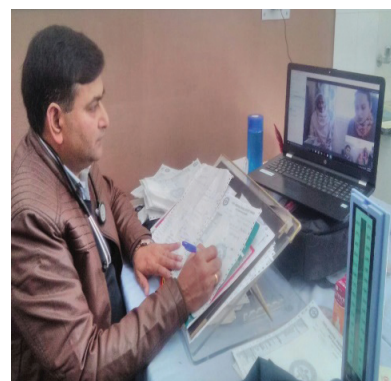
1. e-Clinics

With an objective to overcome the barrier to access the specialist services for Diabetes and Hypertension for the patients in primary level health facilities and for better management of the patients as well as their complications the facility of e-clinic was established in two locations i.e. PHC Sainj and CHC Dhami in district Shimla, under the project HealthRise in mid-2017. This intervention aimed at addressing the fundamental challenges of primary health system i.e. A) *Brings specialized care closer to community*, B) *Reduces OOPE*, which were the two prime reasons for poor health outcomes and poverty. This intervention strengthened complications management within the primary health system to improve health seeking behavior among the patients by improving availability and accessibility of specialist services thereby reducing morbidities and mortalities associated with these silent killer diseases.



Photograph 6: e Clinic Consultation at CHC Dhammi

Once a patient was diagnosed of Diabetes or Hypertension in the intervention PHC and needed specialist care, those patients were then referred to the e-clinic by the medical officer (MO) of the PHC. The e-clinics had trained health staff (at least one general nursing and midwifery (GNM) level professional and one medical doctor), and specialist doctors were based (at Indira Gandhi Medical College Shimla) to provide remote consultation using skype. The specialist doctor would discuss the issue with the patient with the help of the GNM/doctor at the PHC, prescribed necessary tests, analyzed results online, and decided on the treatment course.



Photograph 7: Specialist in Civil Hospital Theog

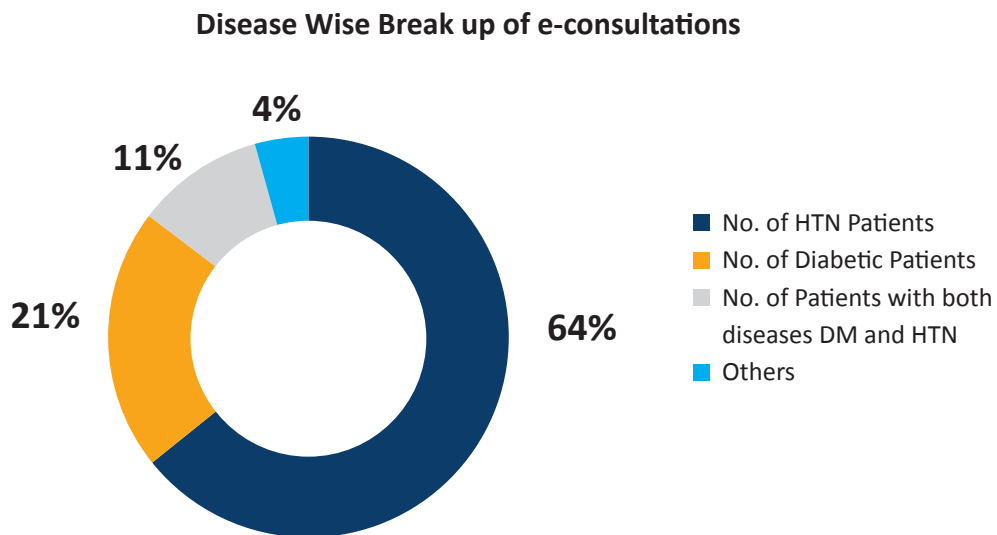
Table 2: Showcasing success of e-clinic facility

e-Clinic Success at a Glance

Total Number of days when e-clinic consultation were held	60
Total Number of Patients who visited e-clinic facility and sought consultation	232
Number of Males who sought e-clinic consultation	62
Number of females who sought e-clinic consultation	170

Initial assessment of the model also shows that e-clinic cuts down travel time, travel and opportunity cost. Importantly, beneficiaries tend to seek Specialist Care if made available for both men and women in their vicinity as they do-not have to suffer any wage loss. Our on ground experience also suggests that the remote consultation (e clinic) is specifically beneficial for elderly and female patients.

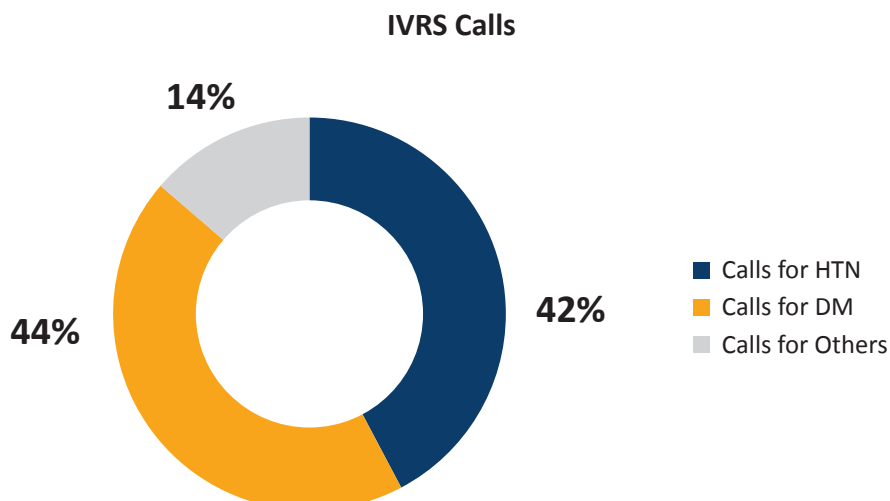
Graph 1: Showing Disease Wise Breakup of e-consultations



2. IVRS

People residing in our intervention area Theog and Mashobra had no alternate access to information on the killer diseases Diabetes and Hypertension apart from HealthRise. Interactive voice response Service i.e. IVRS was introduced with an objective to improve knowledge of general masses on diabetes and hypertension. MAMTA developed Toll free IVRS number (1800-11-2460) helpline to answer queries/concerns of the masses regarding Diabetes and Hypertension. IVRS Dashboard provided information regarding the total number of calls received everyday, summary of calls for the ongoing week and details of unique callers. About **209 Calls were received** in about 6 months.

Graph 2: Showing Disease Wise Breakup of IVRS Calls Received



3. MIS and m Health Application

MAMTA used the MIS (Management Information System developed by e-Tech with support from ABT Associates) to record data during the course of implementation of HealthRise. MAMTA also trained 28 ASHAs on a mobile phone application that empowered FLHWs with real-time data and job aids, strengthened linkages between ORWs and ASHAs, and supported patients. Through the application, ORWs, ASHAs, and ANMs had access to information such as which patients to follow up with, the date of follow up, the patient's diagnostic results, and what type of advice to give to the patient. The application also sent reminders to FLHWs to follow up with patients, sent appointment reminders to patients by SMS, and stored audio and video clips that can be used to educate patients during household visits.

Community Empowerment and Behavior Change Strategy

1. Patient Support Groups (PSG)

ORWs who had received training on non-communicable diseases (NCDs) and counselling through HealthRise established and facilitated support groups for patients and their families in or close to their communities. These groups met quarterly and provided patients and families an opportunity to discuss challenges and successes, share practical advice based on personal experience, and motivate each other to manage their own care. Every patient support group selected one leader who had controlled levels of blood pressure or blood sugar and was motivated to take the lead in supporting other members or patients. These leaders were also trained on management and counseling for patient empowerment. Overall **376 PSG meetings** were held where more than **2600 people** including patients, caregivers, young leaders, community influencers attended these meetings.



Photograph 8: From One of the PSG Meeting

2. SALT

MAMTA introduced SALT technique of Constellation whose implementation was supported by Constellation team. Acronym SALT stands for Stimulate, Appreciate, Listen, Learn, and Transfer. This is based on the belief that patients have the capacity to respond to their own issues using their strengths and achieve their dreams. ORWs, ASHAs and health workers will learn how to facilitate communities through an action learning cycle-community life competence process.

This approach trained health workers and ORWs on ways to work with patients and communities and ensure behaviour change in particular life style modifications in diet, physical

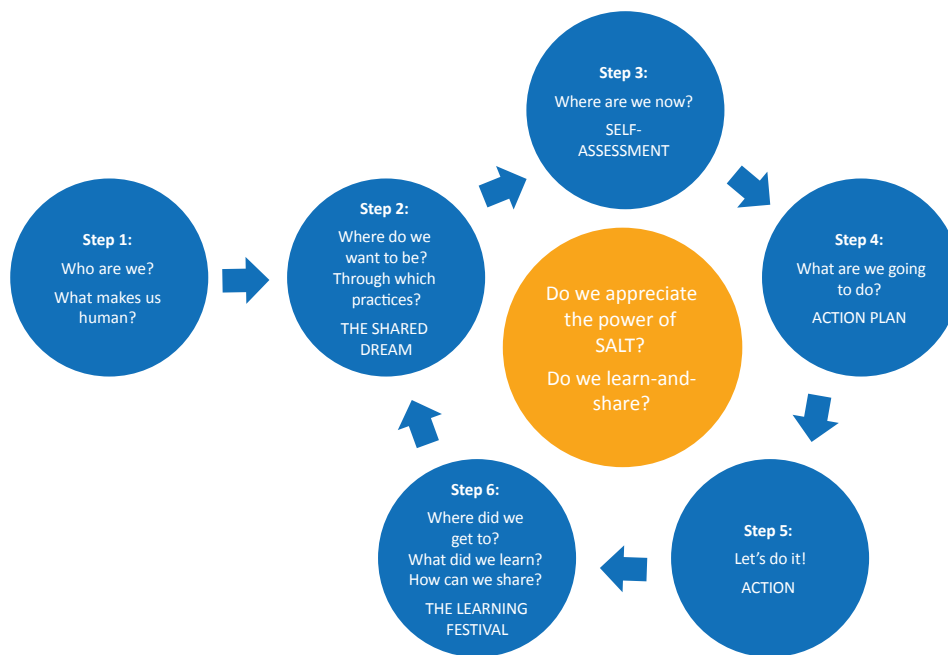


Photograph 9: SALT group performing activity

inactivity, alcohol/tobacco use and adherence to medication. The figure 9 depicts the entire Community Life Competence Process of SALT.

Considering the resource constraint, SALT was implemented in **14 villages** in the intervention area where each ORW implemented SALT in two villages in order to demonstrate its effectiveness in bringing behavior change and they start taking action for their own good. HealthRise and SALT together succeeded in kick starting this change in the community.

Figure 9: Community Life Competence Process



Across 14 villages, 136 patients with uncontrolled blood pressure as well as uncontrolled levels of blood sugar were involved and after the completion of the intervention the test results showed 53 percent of the total had controlled blood pressure as well as sugar level.

Empowered Community Taking Actions for Themselves



Regular Yoga in Small Groups



Conduct Facility Based Screening Camp



Routine Check ups



Field Work promoting Physical Activity

Photograph 10: Success of SALT and PSGs

Policy and Advocacy

Engaging stakeholders throughout the program has been a fundamental building block in achieving the objectives of HealthRise; it is critical to ensuring that the program activities remain aligned with local priorities, while also building local ownership of the program and laying the foundation for the sustainability of these efforts. MAMTA convened a steering committee of various stakeholders to provide direction and advice throughout the duration of the project. These partnerships were intended to ensure continuous improvement of the project to better address the individual needs of the selected communities. Additionally, Health Rise also had engaged key stakeholders from the state governments and the district governments to gain insights and recommendations about the design of the program and advocate for its sustainability and scale up.



Photograph 11: Project Steering Committee Meeting

Steering Committee meetings were held biannually at state level along with quarterly multi-stakeholder meetings at block and district levels were held to share the project updates, the plan for next six months. These meetings also provided a forum to discuss implementation challenges and seek suggestions, solutions or alternatives for the same. **More than 20 such meetings** were organised during the course of the project. The key outcomes of the advocacy have been:



Photograph 12: District Multi Stakeholder Meeting

1. To begin the reporting at all the levels, NCD Registers were distributed to all the health facilities along with the reporting formats of NPCDCS.
2. Confirmatory Diagnostic Facility was made available in two of the intervention health facilities.
3. Civil Hospital, Theog, Sunni and Junga started 'NCD Day' in their hospitals on a dedicated day every month, where people could undergo diagnosis and get medicines.

Key Challenges

1. Due to the asymptomatic nature of these diseases people were unwilling to get screened as well as initiate treatment.
2. Meagre availability of confirmatory diagnostic facilities in the intervention area was a challenge as only 7 facilities in the area were equipped and functional for conducting venous blood examination for Sugar levels.
3. In addition to the hilly terrain and lack of transport facilities, inaccessible diagnostic facilities led to lower percentages of reach v/s referral.
4. Though more than 30 medical officers were trained on NCD modules but there was reluctance in treatment initiation at their level and hence people were referred to higher level of facilities.
5. Human resource crunch in hard to reach areas in public health facilities was a challenge as people were reluctant to travel long distances to get diagnosed or treated.
6. It was difficult to mobilize the patients for confirmatory diagnosis and routine check-ups during apple season in Shimla from June to October.
7. Migratory population (laborers) working in apple orchards added to the numbers of lost to follow up cases.
8. It was difficult to convince male population to attend screening camps, PSG meetings and routine checkups as they had to suffer wage loss.
9. Unavailability of diagnostic and medicine facilities in the PSG meetings was a challenge to mobilize patients to attend such meetings.
10. Implementation of a human resource extensive activity like SALT along with the other routine activities was a challenge.
11. The high OPD case load with the specialist in civil hospital led to long waiting time for the e-consultation cases.
12. Some of the health facilities charged user charges for conducting venous blood examination under Rogi Kalyan Samiti (RKS).

Key Learnings

1. Involving local, state and national government officials since the inception of the program has proven to be fruitful and the project implementation has been smooth. Government being informed and having a consensual agreement has supported the program and could help HealthRise team to technically equip them and share responsibilities in project implementation.

2. Continuous intervention is needed to address the demand side challenges. For example, effective counselling for treatment adherence, bringing care near to target audience to address barriers to care and demystifying myths and misconceptions etc. are some of the measures to be continued relentlessly for tackling the problem.
3. Strong Advocacy is needed to make policy reforms for NCD care.
4. There is dearth of trained NCD care health workforce so we need to prepare a cadre of NCD care health workforce at all the levels of care especially primary level for future endeavors.
5. An active surveillance needs to be institutionalized for continuous monitoring and tracking of NCD cases to have information on prognosis trends and clinical outcomes for better programmatic decisions.
6. An enabling environment is needed for prevention among the unaffected and to support patients to manage their condition.

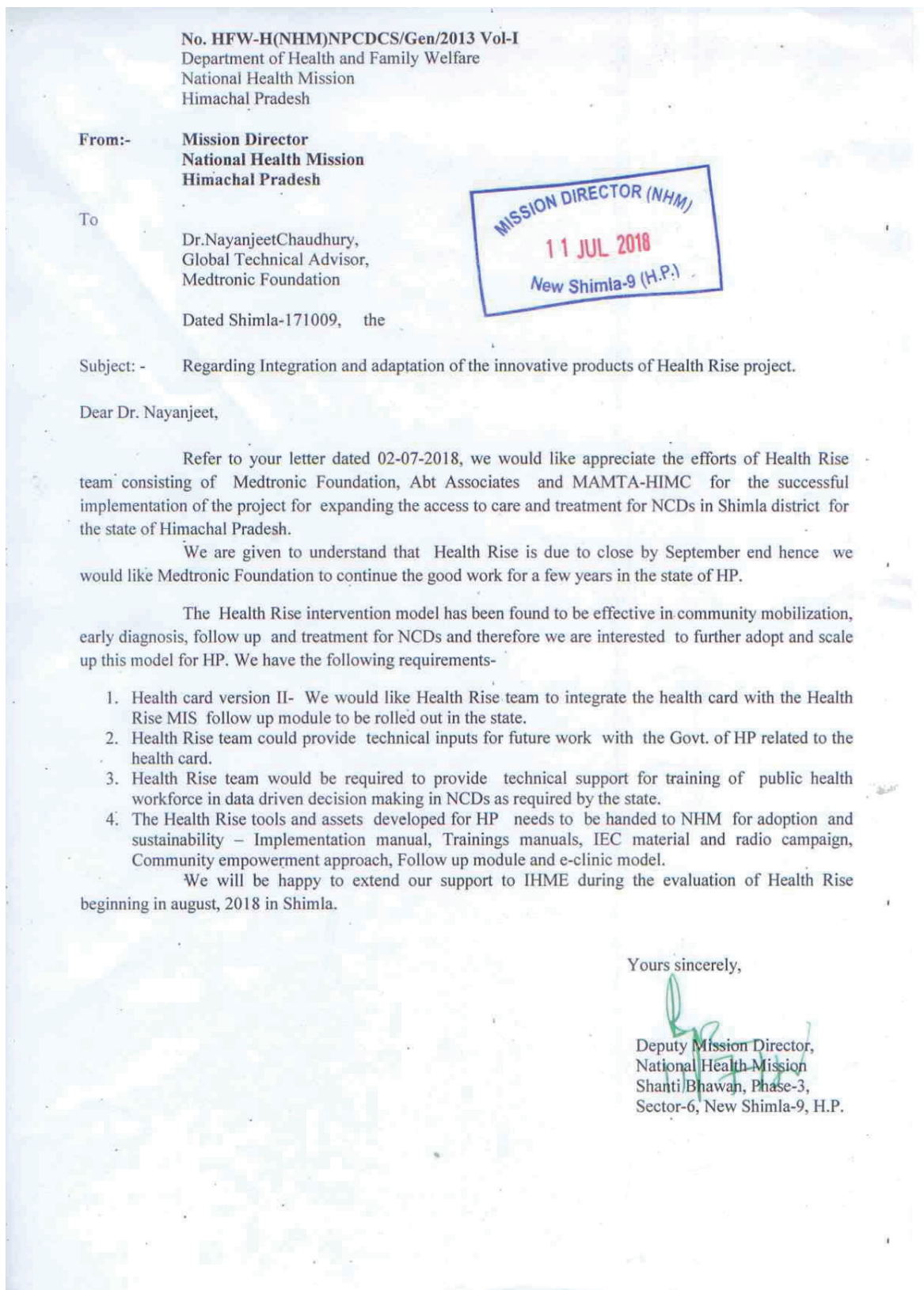
Transition, Sustainability and Scale Up

The fourth meeting of Project Steering Committee chaired by Dr. Gopal Chauhan, OSD- NCD on March 19, 2018 in Shimla, Himachal Pradesh was organized with an objective to inform Government officials about the achievements of HealthRise and subsequently discuss the sustainability plan post closure of project. MAMTA and HealthRise have integrated with the public health system and built a foundation for sustainability and scale up of HealthRise activities through the following initiatives:

1. In collaboration with Project HOPE and ABT Associates, MAMTA trained a cadre of government master trainers who then trained ASHAs, ANMs, and medical officers in the intervention area. The government master trainers and training manuals can be used by the government to train state FLHWs and medical officers following HealthRise.
2. ASHAs and ANMs are leading the screening camps and conducting follow-up household visits.
3. Data collection capacity building: MAMTA has supported the government system by putting the necessary formats for data recording and compilation in place at the sub-center and PHC level.
4. Awareness raising and community mobilization activities have generated interest in and demand for NCD services.
5. Set up a referrals process that can remain for government health centers to use wherein patients diagnosed through future projects or government efforts can receive care, counseling, treatment, and follow up for NCDs.
6. Documented all the resources and steps required for implementation of all activities in an implementation manual. The manual is based on the government's new NCD guidelines and can be used by the local government to continue implementation of HealthRise activities. Others interested in implementing similar activities in other areas can use the manual to guide their interventions.
7. Sensitization of community leaders regarding NCDs will facilitate ongoing community support for NCD initiatives.
8. The selection of patient champions in patient support groups empowers these groups to continue on their own.

Government is keen on adopting HealthRise interventions and has issued a letter to integrate and adapt the innovative products of HealthRise. All the services will be transitioned to MOH and community leaders or patient champions developed under HealthRise.

Letter from NHM, Himachal Pradesh



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HEALTHRISE SHIMLA MIS DASHBOARD WITH DISEASE SPECIFIC DETAILS

S. No	Indicator	Target		Achievement	
1	No. of Screening Camps Held	NA		336	
2	No. of People Mobilized	40033		58172	
S.N.	Indicator	HTN	DM	HTN	DM
3	No. of People screened	14000	14000	22053	22053
4	No. of Suspects identified from screening	2100	210	2061	737
5	% of suspect identified from screening	15%	1.50%	9.35%	3.34%
6	No. of Known (controlled cases) identified from screening	280	280	527	202
7	No. of Known (Un-controlled cases) identified from screening	280	280	930	373
8	% of Known cases from screening	4%	4%	6.61%	2.61%
9	No. of new cases followed-up for confirmatory test at health facility	1260	126	1371	473
10	% of new screened positive individuals visited facility for confirmatory diagnosis	60%	60%	66.52%	64.18%
11	# of cases diagnosed positive and started treatment - Pharmacotherapy (out of total new referred cases who visited the facility)	630	63	205	70
12	% of cases diagnosed positive and started treatment - Pharmacotherapy (out of total new referred cases who visited the facility)	50%	50%	14.95%	14.80%
13	% of cases diagnosed positive and started treatment amongst those suspect identified from screening	NA	NA	9.95%	9.50%
14	No. of cases with disease amongst screened (Known + New)	NA	NA	1662	645
15	% of cases with disease amongst screened (Known + New)	NA	NA	7.54%	2.92%
16	No. of cases under patient follow-up pool (Known-Uncontrolled + New))	826	259	1135	443
17	No of cases under patient follow-up care (met at least once at household by ORW)	NA	NA	1067	451
18	# of individuals meeting treatment targets	249	62	340	204
19	% of individuals meeting treatment targets	50%	40%	31.87%	45.23%

CASE STUDIES

Case Study 1: The Functional Autoanalyzer.....

For the smooth implementation of HealthRise project in Shimla, health facility mapping was carried out. At the same time, gap analysis was performed on the basis of facility mapping which resulted in identifying bottlenecks in the health system. It was found that Auto-analyzer in Community health Centre (CHC), Dhami was given to the facility in 2013 but was not in operation. The biggest challenge was that there was no trained lab- technician to use the Auto-analyzer. HealthRise team took the case to BMO, Mashobra and CMO Shimla. After concerted effort by the team, two days training was organized for lab-technicians to accustom them on the use of Auto-analyzer. The training was organized at PHC Tutu in the month of June, 2017. After the training, the lab technician started using the Auto-analyzer. Now venous blood sugar (FBS, PPBS and RBS), Lipid profile, RFT, LFT are being done in routine at CHC Dhami.

Keeping in mind that the lab-technicians are available and test can be performed we started sending patients enrolled in HealthRise for regular tests and specialist advice in routine manner. Moreover, we started advising the screened positive cases at the screening camp (suspected individuals) for confirmatory diagnosis too.

Case Study 2: Knowledge Enhancement of FLHW

National Program for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) was launched in 2010 in 100 districts across 21 States, in order to prevent and control the major NCDs. One of the main strategies of this program was to build capacity at various levels of health care for prevention, early diagnosis, treatment, IEC/BCC, operational research and rehabilitation.

FLHWs were not capacitated on Non communicable disease and training was not done in the district since the program started.

As the HealthRise project started in two blocks of the district Shimla, Master trainers for training of FLHW were formed and they were trained on Non-communicable disease, they further trained the FLHWs of both the blocks. Training modules were given to the FLHWs covering risk factors, pathogenesis, symptoms, complications, counseling etc.

Madhu Sharma a FLHW from Majhar (Block-Theog) said *“HealthRise dwara di gyi training se humein BP, Sugar k bare mein poori jaankari mili hai aur inki normal aur high range ka bhi pta chala hai” “ With the training given by HealthRise, we have got complete information about BP/ Sugar and its Normal and High range have also been detected “*

Keeping in mind about the sustainability, master trainers were made from government side so that after the HealthRise gets over, these master trainers can be utilized to train the other FLHW of Other blocks as well as districts.

Case Study 3: Shakuntala's Victory over Diabetes.....

NCDs like Diabetes and hypertension are asymptomatic. Sometime people with high value goes undetected and people consider themselves healthy.

HealthRise project team in partnership with government health care facilities organized screening camps at village/panchayats, door to door screening and awareness campaign in two blocks of Shimla district. Suspected and existing patients screened with hypertension and diabetes were referred to nearest health facility for treatment. For treatment adherence of the patients, regular home follows up visit were done by the ORWs/ASHAs time to time. The ORWs also give counseling on diet control, importance of regular physical exercise and motivate the patients to go timely routine checkup.

Shakuntala Bhardwaj, a resident of this **Danuat** got herself screened for hypertension and diabetes on 12th April 2017 and found out that her RBS was 253mg/dl. She was given counseling and was referred to civil hospital for further investigation and was diagnosed with diabetes. She is now on medication and her blood sugar level as of 12th April 2018 her RBS level is 161mg/dl. The ORW continuously followed her up for counseling on diet control and routine checkup along with lifestyle modification. Along with this, SALT technique has been introduced for community empowerment. She is actively taking part and also empowering other patients for awareness.

Case Study 4: Advocacy pays....

NPCDCS program was initiated in October 2010 towards the end of the 11th Plan in 100 districts of 21 states including Himachal Pradesh and the focus of the program was on health promotion, early detection and management of chronic non-communicable diseases and also to enable opportunistic screening for non-communicable disease at Districts and community level.

Even after the implementation of the program, screening was done in very few health facilities and the glucometer strips supplied by government were not utilized even though the stocks were going to expire within a month (i.e. 31st July 2016)

Advocacy by the HealthRise project team was done with government officials of NHM, HP and CMO Shimla and they were aware about two lots and expiry of glucometer strips. Due to which they started organizing screening camps and the glucometer strips were utilized.


Keeping in mind the importance of timely screening, the patients enrolled under the HealthRise projects were sent to health care facilities for screening and routine checkup.




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