The George Institute
for Global Health India

GLOBAL WOMEN'S HEALTH PROGRAM INDIA

Over the past few decades, significant progress has been made in improving the health of women and girls. However, the global burden of disease for women has undergone a transformation. Today, non-communicable diseases and injuries (NCDIs) have emerged as the leading causes of death and disability among women worldwide. To address this challenge, the Global Women's Health Program (GWHP) was established with the bold vision of improving women's health, achieving gender equality, and empowering women globally by 2030.

Our Approach

The GWHP adopts a comprehensive life-course approach to tackle the burden of NCDIs and other important women-specific health issues. We strive to facilitate significant reductions in the burden of NCDIs in women, while transforming the provision of primary care to enable early detection and management of common women-specific conditions and cancers, particularly in low- and middle-income countries.

We also collaborate with esteemed academic partners, such as the Manipal Academy of Higher Education (MAHE), All India Institute of Medical Sciences (AIIMS), Delhi and National Institute of Cancer Prevention and Research. This collaboration allows us to expand our knowledge and tackle critical areas, including high-risk pregnancies, gynaecological morbidities, and other women-specific conditions.

Expertise and Collaboration

Since its establishment in 2018, the GWHP has leveraged the expertise of The George Institute and its global network of offices, including those in Australia, China, India, and the UK. Our program builds upon the extensive experience of The George Institute in conducting large-scale clinical, epidemiological, and health systems research, primarily focused on addressing the global burden of Non Communicable Diseases (NCDs).

Research and Advocacy Areas

The GWHP is dedicated to advancing knowledge and advocating for change in various key areas:

1. Addressing the burden of NCDIs:

- Conducting sex-disaggregated analysis and intersectional, gender-sensitive research.
- Integrating the management of pregnancy with NCDI prevention.

2. Addressing important women-specific health issues:

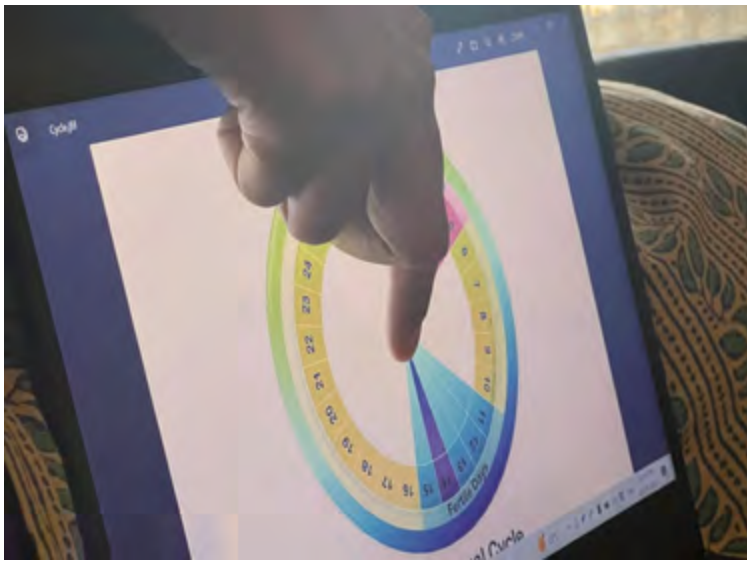
- Focusing on gynaecological cancers and morbidity.
- Recognizing women as healthcare workers and carers.
- Promoting menstrual hygiene and addressing its environmental impact.
- Combating gender-based violence.

Taking a Gendered Approach

Recognizing the significance of gender differences in disease occurrence and outcomes, we emphasize a gendered approach to data collection and utilization. By disaggregating health data by sex and considering a gender perspective, we can enhance our understanding of the interaction between biological, sociocultural, and economic factors in determining NCDI risks and outcomes.

3. Our researchers analyse datasets to explore:

- Variations in access to care for women and men in preventing and treating NCDs.
- Barriers that hinder women from seeking early care and strategies to improve timely access to care.
- Pathways and quality of care for women in preventing and treating NCDs, with a focus on potential differences between women and men, and implementation strategies for ensuring optimal care for women.



Our Projects

1. Use Pregnancy to improve women's lifelong Health

- SMART*health* Pregnancy: Improving life-long health for rural Indian women through a low-cost and smartphone-based system. It supports clinical decision-making, screening, detection, and management of adults with chronic diseases in India.
- The Perinatal Mental Health Project (PRAMH): SMART*health* Pregnancy and mental health focuses on integrating mental health into rural Indian women's maternity care, aiming to prevent, detect and support women with CPMDs (common perinatal mental disorders).
- Lifestyle InterVention in Gestational Diabetes (LIVING): This project aims to determine whether a resource- and culturally-appropriate lifestyle intervention program in South Asian countries, provided, after childbirth, to women with prior gestational diabetes, will reduce the incidence of worsening of glycaemic status, in a manner that is affordable, acceptable and scalable.
- Barriers faced by urban homeless women in accessing Maternal and Child Health (MCH) Services in the wake of COVID-19 in Delhi.

2. Improve Outcomes for women-specific conditions

- Study and Action on Hysterectomy: Evidence on women's health through the Life Course in India (SAHELI)-Brings together epidemiologists, gynaecologists, and health systems experts to understand the patterns, causes, and Consequences of hysterectomy on women's health, and well-being.
- Socio-ecological factors for influencing cervical cancer screening and treatment in India: A qualitative study among marginalized women – A qualitative study to understand the socio-ecological factors that have influenced the cervical cancer prevention, screening and treatment among women belonging to vulnerable groups.
- Women's experience of living with Endometriosis and seeking medical treatment in India: A qualitative study to explore women's experiences of endometriosis and its impact, involving women and their partners.

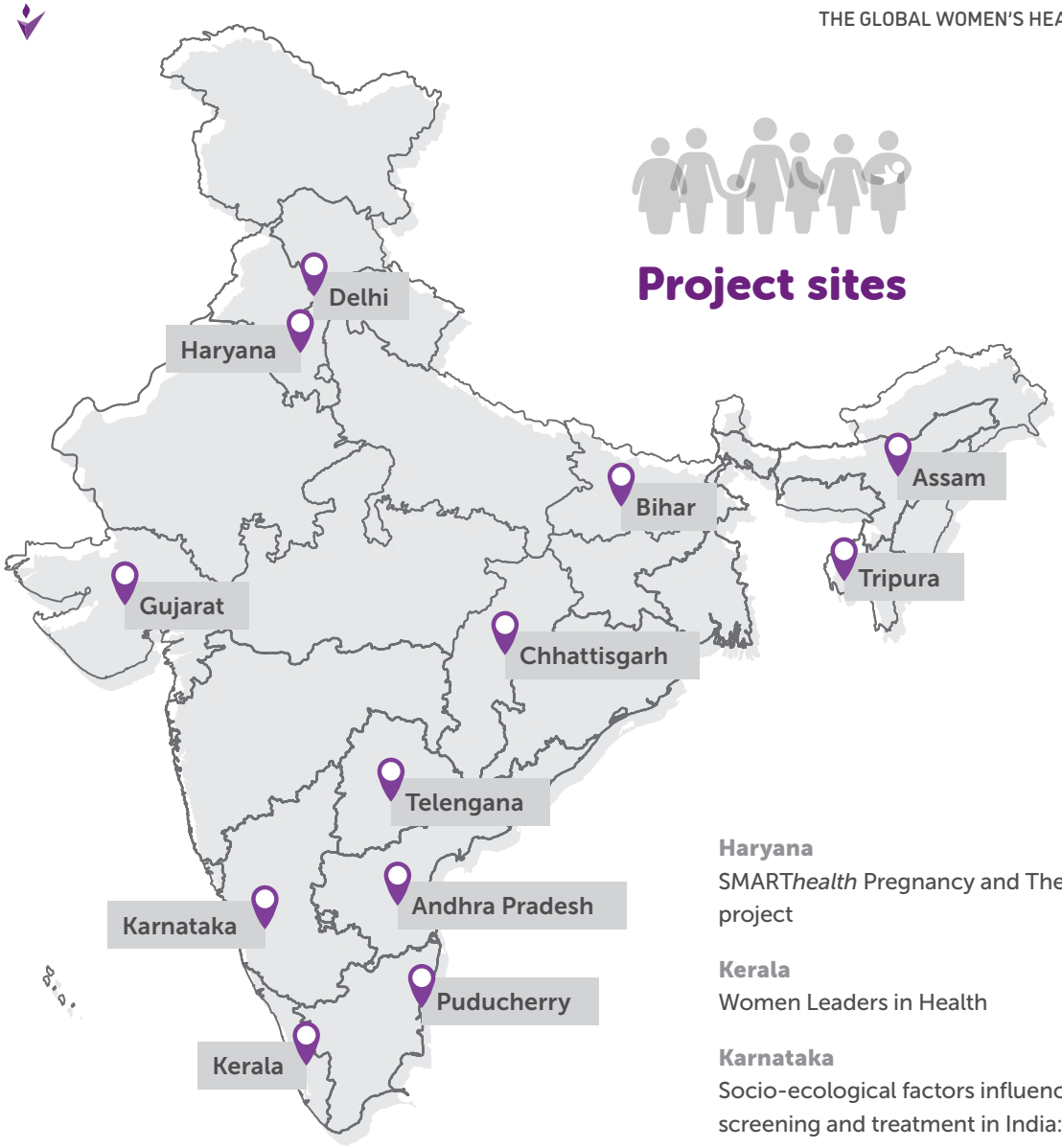
3. Futureproof Women and girl's health against environmental change

- Effects of extreme heat on maternal, placental and fetal physiology, lactation and Newborn Health in India.
- Perspectives, practices, and environmental footprints related to menstrual hygiene among girls and women in India (PEnMen)
- Sustainable, Acceptable, Healthy, and Inexpensive Menstrual Hygiene Management (SAHI MHM) in disadvantaged communities in urban India.

4. Revolutionize women's healthcare with artificial intelligence

SMART*health* Chat GPT: SMART*health* ChatGPT is an additional feature in the SMART*health* Pregnancy App (developed in-house by The George Institute), which aims to improve community-based detection and referral of high-risk pregnancy and postpartum cases in rural states of Telangana and Haryana.

Project sites



Assam
Women's experiences of living with Endometriosis and seeking medical treatment in India: A qualitative study

Bihar and Gujarat
Study and Action on Hysterectomy: Evidence on women's health through the Life Course in India (SAHELI)

Chhattisgarh
Effects of extreme heat on maternal, placental and fetal physiology, lactation and newborn health in India

Delhi
- Barriers faced by urban homeless women in accessing Maternal and Child Health (MCH) Services in the wake of COVID-19 in Delhi
- Lifestyle InterVention IN Gestational Diabetes (LIVING)
- Socio-ecological factors influencing cervical cancer screening and treatment in India: A qualitative study among marginalized women
- Women's experiences of living with Endometriosis and seeking medical treatment in India: A qualitative study

Haryana
SMART*health* Pregnancy and The Perinatal Mental Health project

Kerala
Women Leaders in Health

Karnataka
Socio-ecological factors influencing cervical cancer screening and treatment in India: A qualitative study among marginalized women

Puducherry
Effects of extreme heat on maternal, placental and fetal physiology, lactation and newborn health in India

Telengana and Andhra Pradesh
- Perspectives, practices, and environmental footprints related to menstrual hygiene among girls and women in India – a pilot study [PEnMen-pilot]
- SMART*health* Pregnancy
- Study and Action on Hysterectomy: Evidence on women's health through the Life Course in India (SAHELI)
- Sustainable, Acceptable, Healthy, and Inexpensive Menstrual Hygiene Management (SAHI MHM)

Tripura
- Multisectoral Nutrition intervention for Anemia Reduction Initiative (NARI): Implementation Research for Improving Women's Health in Tripura, India
- Socio-ecological factors influencing cervical cancer screening and treatment in India: A qualitative study among marginalized women

CASE STUDY

Reducing Maternal Health Risks in Rural India

SMARThealth Pregnancy-2 (SHP2)

Introduction

SMART*health* Pregnancy-2 (SHP2) is a large-scale research project aimed at reducing anaemia, gestational diabetes, and cardiometabolic risks during pregnancy and the first year following birth in women living in rural India. Building upon the success of the SMART*health* Pregnancy Pilot Study, SHP2 utilizes an electronic decision support system based on the SMART*health* Pregnancy tool to enhance guideline-based screening and management of high-risk conditions among pregnant women. This case study delves into the implementation, role, and impact of the SHP2 intervention, focusing on the empowering role of Accredited Social Health Activists (ASHAs) in delivering pregnancy care in rural communities.

Background

In India, maternal health has been a significant concern, especially in rural areas where access to quality healthcare is limited. The SMART*health* Pregnancy Pilot Study demonstrated the feasibility and acceptability of an electronic decision support system in improving maternal health outcomes. Building on this foundation, SHP2 was rolled out in June 2022 in sixteen Primary Health Centers (PHCs) in the Siddipet district of Telangana state, India.

ASHAs and their Role in SHP2

ASHAs play a pivotal role in the SHP2 intervention by providing essential pregnancy care during their routine home visits. Their responsibilities include screening, detection, referral, and follow-up of women with high-risk conditions during pregnancy and the postpartum period, enabled by a specially developed app deployed on tablets. The project involved training fifty-four ASHAs in eight PHCs through a three-day program covering clinical conditions, the use of point-of-care devices, and the SMART*health* Pregnancy App.

Impact of ASHA Training and Support

ASHAs expressed their satisfaction with the training provided, emphasizing that it enhanced their ability to conduct risk assessments and identify women with high-risk conditions.

They were now capable of conducting tests for anaemia assessment, glucose tolerance, and blood pressure measurements during pregnancy and post-birth at the home level. The regularity of these tests, previously performed at government hospitals, improved due to the intervention, leading to timely referrals and evidence-based management using the SMART*health* Pregnancy app.

Raising Awareness and Community Engagement

Another crucial aspect of the ASHAs' role in SHP2 is raising awareness about the long-term implications of high-risk conditions during pregnancy on women's lifelong health. They actively engaged with the community through awareness campaigns and camps, earning appreciation from villagers, local leaders, and doctors alike.

Impact on Maternal Health

Traditionally, women in rural India were advised to attend antenatal clinics in primary care centers or hospitals for detecting high-risk conditions. However, with the education and training provided to ASHAs through SHP2, effective screening, referrals, and follow-ups were conducted within the woman's village. This approach accelerated the reduction in complications during and after delivery, leading to improved maternal health outcomes and reduced maternal mortality and morbidity.

Training provided to ASHA's was very useful as we can do testing for anaemia assessment, glucose tolerance test, and BP measurement during the pregnancy and after birth again at the home level, and then patients referred to the PHC doctor for further assessment.

Ramadevi
one of the trained ASHAs

Conclusion

SMART*health* Pregnancy-2 (SHP2) exemplifies a successful implementation of a complex intervention aimed at reducing maternal health risks in rural India.

The involvement of ASHAs in delivering pregnancy care through the use of an electronic decision support system has empowered these frontline health workers and positively impacted the long-term health of mothers and newborns. By conducting screening, timely referrals, and evidence-based management, SHP2 has contributed significantly to enhancing maternal health outcomes and addressing the challenges faced by women living in rural communities.

IMPACT STORY: 1

Breaking the Silence

Empowering Women Waste Workers through Menstrual Health Transformation

In the bustling cities of Shimla, Guntur, and Vijayawada in India, the ARISE hub took a step towards addressing neglected menstrual health needs of women waste workers. Engaging in candid conversations with these women revealed their struggles surrounding their work and health – they endure hardships in menstruation, have limited information about menstruation and menstrual products, lack access to WASH and quality healthcare, and are restricted by cultural beliefs and taboos. Additionally, inclusive spaces and opportunities for women to participate in collectives were found to be limited.

The menstrual health initiative involves conducting cyclical workshops with women waste workers to enhance their awareness of the menstrual cycle and its linkages to reproductive health, knowledge of menstrual products (distribution of menstrual kits) and identify factors that impede their menstrual health. Adopting a participatory approach facilitated engagement from women and has significantly transformed the team's outlook towards menstrual health - shifting the focus away from 'menstrual hygiene management' towards a human rights-based approach to menstrual health.

While the initiative is in its preliminary stages of implementation, some initial impacts have been observed at the community and systems level.

A government tertiary care hospital has extended its support to facilitate the gynaecological check-ups for workers, and also requested the team to conduct workshops on menstrual health for their medical staff, including doctors, nurses, ward attendants and sanitation workers. This has greatly strengthened the collaborative relationship between the research team and system level actors.

The menstrual health initiative garnered interest and support from systems level actors. The Municipal Corporation and Department of Health & Family Welfare pledged their support.

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Looking ahead, we plan to co-develop training modules to educate urban poor women and hospital-based workers, ensuring the integration of menstrual health in the state's urban local bodies and healthcare system.

Additionally, the research team will join forces with the women waste workers to co-implement an advocacy plan, empowering them to advocate for their own menstrual health rights.

Surekha Garimella
Principal Investigator, ARISE

IMPACT STORY: 2

Mainstreaming Traditional Foods

Reviving Ho Tribal Women's nutritional status with Scientifically Optimized Diets

Jharkhand, the land of forests ("Jhar" meaning forest and "Khand" meaning land), is home to several tribal communities. One of the populous tribes, 'Ho' resides in villages nestled in hilly and forested terrains of West Singhbhum district. Despite the presence of rich biodiversity, a high prevalence of malnutrition is seen in Ho women and children. A study was conducted to explore the indigenous foods (IFs) consumed by the Ho tribe, along with an assessment of the dietary intake and nutritional status of women in this community. We engaged with the Ho community through a series of discussions and tried to explore the different types of IFs consumed by them, the places where these foods are accessed from, and their seasonal availability. Several of these IFs were classified based on their botanical names, following which, we documented their nutritive values from scientific literature. In cases where we did not find any documented nutritive values, the IFs were collected from the field and sent to a food testing laboratory for nutrient analysis. Local markets accessed by the Ho tribe were also surveyed to obtain information on food prices.

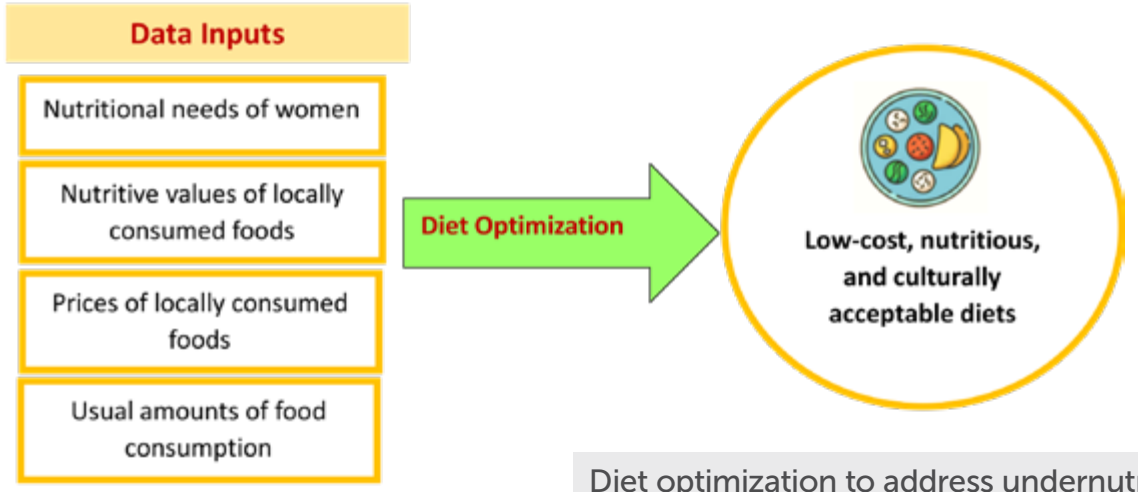
Several IFs consumed by the Ho tribe were found to be rich sources of micronutrients like iron, calcium, zinc, vitamin A, vitamin C, and folic acid. Yet, the meals consumed by women lacked diversity and were nutrient deficient.

The diets did not meet the nutritional needs of these women. Therefore, we decided to use a scientific approach to develop daily dietary plans for Ho women that not only took care of the nutrient gaps in their diets but were also local, culturally acceptable, and affordable. We used a statistical technique known as diet optimization analysis, which identifies the best mix of foodstuffs to meet nutritional needs while minimizing costs.

The data inputs included:

1) Nutritive value of locally consumed foods
2) Their prices
3) Usual food consumption amounts, and
4) Nutritional needs of women, which were modelled in Python software, producing different combinations of foods for a day's diet, until a desired optimized diet plan was achieved.

Looking ahead, the expectations are high as the scientifically developed diet plans hold the promise of revitalizing the health and nutritional wellbeing of the Ho community. This powerful initiative sets a precedent for similar interventions, merging scientific expertise with cultural heritage to create a brighter and healthier future for the Ho tribe and beyond. As nutritionally vulnerable populations find solace in low-cost, locally sourced, and scientifically validated diets, the journey towards



Diet optimization to address undernutrition in women

nourishing traditions continues, revitalizing the hearts, minds, and bodies of communities across Jharkhand. As stated by one of the women: "We liked the recipe of paushtik roti...it is new for us.. to mix saag in roti. We will try this."

However, for some ingredients and recipes, communities expressed issues in procuring them and voiced the need for receiving them as part of Government supplementary feeding programs. For example, for recipes that had peanuts as key ingredients; for example, Chikki (brittle made from nuts and jaggery) and Gud Roti (Roti, made using wheat flour, peanuts and jaggery), one woman commented: "It might be difficult for us to buy peanuts, it would be nice if we can get peanuts from Anganwadi (ICDS program) , the way we used to get earlier".

We are hopeful that with the use of these scientifically developed diet plans, the Ho tribal women would be able to consume the right amount of nutrients that their body needs, using locally available and culturally acceptable food items.

These optimized diets consisting of local foods and recipes were made to be contextual, diverse, and met the nutritional requirements of Ho women at the lowest possible cost (ranging between 31-37 INR per day).

This scientific work was also a modest effort towards creating a food-based approach that would feed the malnourished population with low-cost local foods in a scientifically validated way. Overall, the diet optimization exercise was an exciting work for the research team, as it helped us acquire a new scientific skill set, and importantly, this skill was put into practice to develop practical and contextual diets for nutritionally vulnerable populations.

OUR FUNDERS

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Give India Crowdfunding Platform

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Medical Research Council (MRC), UK

National Health and Medical Research Council of Australia, (NHMRC)

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All India Institute of Medical Sciences (AIIMS), New Delhi

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University of Kelaniya, Sri Lanka

University of New South Wales (UNSW) Sydney

WaterAid India

LEADERSHIP

Vivekanand Jha
Executive Director, India

Jane Hirst
Chair in Global Women's Health

OUR TEAM

Arpita Ghosh
Head Biostatistics and Data Science

D Praveen
Program Director, Better Care India

Devaki Nambiar
Program Director, Healthier Societies

Preety R Rajbangshi
Senior Research Fellow
Global Women's Health Program India

Suparna Ghosh-Jerath
Program Head
Nutrition

Surekha Garimella
Program Lead
Sustainable Health

Partner with us

Together we can challenge the status quo to create better treatments, better care, and healthier societies for women in India.

We are building a collaborative network of research organisations, public health associations, civil society groups, and patient groups across India. We are looking for like-minded partners who share our goal to improve health and social equities by building sustainable and authentic partnerships that can have lasting impact on communities. Partnership opportunities include working with us on local and multi-country research programs and disruptive entrepreneurship, as well as developing policy-relevant outputs to advocate for evidence-based change, and more.

Joygopal Podder
jpodder@georgeinstitute.org.in

For more details please visit
www.georgeinstitute.org/units/womens-health-india