A model for reducing health care touchpoints and increasing early detection of health conditions among women in India

The problem statement

Emerging evidence suggests gender-based inequities exist in access to healthcare, with women facing significant barriers in utilization of quality healthcare services. While these differences exist both in rural and urban geographies, the gaps are much wider in rural areas. Gender-based inequities permeate all facets of healthcare, spanning preventive, promotive, and curative services, which ultimately translate into limited access for women. Beyond the outpatient care, studies reveal disparities in inpatient care too, underscoring the persistent prioritization of men's health over women's, particularly evident in the utilization of health care financing. As healthcare needs, particularly among women, remain largely unaddressed, the compounding effects of climate change, including deteriorating air quality, extreme weather events, rising temperatures, and increasing vector-borne diseases, are expected to exacerbate these challenges. There is a growing recognition that women are more susceptible to the consequences of climate change, largely due to majority among the world’s poor and their greater reliance on limited natural resources.

Furthermore, Non-Communicable Diseases (NCDs) present a significant public health threat. India has experienced a rise in NCDs over the past decade, resulting in approximately 4.7 million deaths in 2017 alone, accounting for 49% of all-cause mortality. Alarmingly, 65% of these deaths occurred prematurely before the age of 70, indicating preventable mortality. Cancers are one of the major contributors to the huge burden of NCDs with common cancers such as breast and cervical cancers among women, and oral and lung cancers among men, contributing significantly to the morbidity and mortality rates. According to the National Cancer Registry Program, breast cancer (25.4%) constitutes more than half of all cancers in women, with cervical cancer (15.2%) following closely behind. Women especially, are disproportionately affected due to these gaps leading to late detection and higher burden of mortality. As per National Family Health Survey 5, only 1.9% women aged between 30-49 years have ever undergone a screening test for cervical cancer and only 0.9% have ever undergone a screening test for breast cancer in India.

Key challenges in addressing the NCD burden among women are:

- Low level of awareness and associated stigma leading to hesitancy towards screening of NCDs especially common cancers among women.
- Poor capacities of health care workers to conduct screening and confirm diagnosis in limited resource settings.
- Poor referral linkages and inadequate tracking, resulting in gaps in linking the screened positive individuals with confirmatory diagnosis and appropriate treatment plan.
- Inadequate knowledge about diagnosis, prognosis and possible treatment plans among patients resulting in poor treatment outcomes.
- Screening for cancers lacks a focus on addressing women's specific challenges. It heavily relies on self-reported symptoms, and opportunistic screenings. The current screening camps neglect to detect cancers and fail to address women's privacy concerns.
- Bad referral experience, post a positive screening test.

In India, Ayushman Bharat Arogya Mandirs offer a comprehensive approach for early detection of five common NCDs including diabetes, hypertension, and three cancers - cervical, breast and oral. The Operational Guidelines for population-based screening recommends administering a Community-Based Assessment Checklist (CBAC) followed by screening for common NCDs. These initiatives have enhanced the

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1 Gender and Inequality in Access to Healthcare Facilities in India: Evidence from NSSO’s 75th Round on Health 
https://journals.sagepub.com/doi/10.1177/09763996231195663

2 Gender inequity in health care expenditures and financing of inpatient care in India. 

3 Burden of non-communicable diseases and its associated economic costs in India, Geetha R. Menon, Jeetendra Yadav, Denny John, Social Sciences & Humanities Open, Volume 5, Issue 1, 2022, 
https://doi.org/10.1016/j.ssoah.2022.100256

4 Non Communicable disease Factsheet: https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases

5 The global burden of women’s cancers: an unmet grand challenge in global health. 
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6191029/
detection of common NCDs where conditions such as hypertension and diabetes account for a significant proportion of screened population.

**Goal**

Demonstrate a model for reducing the inequities in health care access among women in India through a primary health care centered approach.

**Objectives**

- Plan and deliver a comprehensive screening package for women at Ayushman Arogya Mandirs and in outreach settings to promote early detection of health conditions.
- Facilitate optimal navigation of women within healthcare systems to achieve timely diagnosis and treatment, thereby reducing unnecessary interactions with the health care system.

**Approach**

With an aim to create a model and replicable PHC district, PATH is supporting various components of health systems in Satara district of Maharashtra. A human centered design lens was used to understand the behavioral barriers to uptake of PHC services. Post the findings, activities have been undertaken to include deployment of various innovations to strengthen screening of common NCDs, quality assurance initiatives, strengthening community participation and, digitization of primary health care among others.

PATH is working with Public Health Department, Government of Maharashtra to demonstrate a model for organizing population-based screening for women by establishing integrated screening spaces that address not only common cancers but also other prevalent diseases such as hypertension, diabetes mellitus, and anemia. To enhance the quality of screening services, PATH and its partners have introduced innovative tools for breast and cervical cancer screening including an AI based stethoscope for detecting cardiorespiratory abnormalities at primary health care facilities. Additionally, PATH has conducted numerous training and capacity-building programs to address the challenges across the entire spectrum of care, from screening to case management. Thus, there is a necessity to demonstrate a district model that supports the comprehensive care journey of women within health care systems, starting from early identification to linkages with diagnosis and treatment.

In addition to organizing women's health camps, specific areas of support include:

- Developing integrated models for population enumeration, risk stratification, and screening for cancer and other high-burden diseases such as diabetes, hypertension, and anemia at the population level. This involves providing technical assistance and guidance in conducting population enumeration and risk stratification based on risk scoring and symptoms outlined in the CBAC form to ensure the quality of screening.
- Capacity building and hands-on support to various cadres of health care workers on screening, early diagnosis, counseling, etc.
- Creating modules for health care workers such as Community Health Officers (CHOs), nurses, and doctors to orient them on screening, diagnosis, and management of common health conditions affecting women.
- Establishing diagnostic linkages and providing treatment services, including supporting decentralized sample collection for confirmatory diagnostics, and establishing sustainable linkages for confirmatory testing.

*Figure 1: Current activities as part of the District Approach to strengthen PHC*
Figure 2: Demonstration of women cancer care pathways

Women health camp organized at Ayushman Arogya Mandir in Satara district.