



The United Republic of Tanzania

Ministry of Health and Social Welfare

TELEMEDICINE IN TANZANIA

ITU TELECOM WORLD 2011

GENEVA 25th OCT 2011

CURATIVE HEALTH SYSTEM

HOSPITALS

5 NATIONAL & SPECIALIST

5 ZONAL

22 REGIONAL (6 SPECIALISTS EACH)

126 DISTRICT (2 MOs, NO SPECIALISTS)

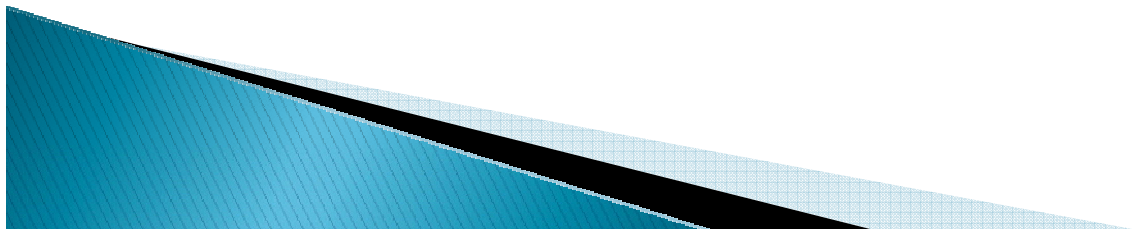
> 480 HEALTH CENTRES

> 4800 DISPENSARIES

NO GRADUATE PROFESSIONALS

ASSUMPTIONS

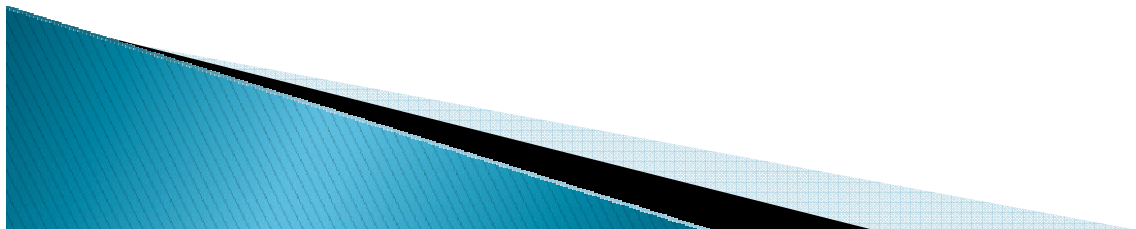
- ▶ LOWER CADRES WILL CONTINUE TO LEARN
- ▶ COST OF REFERRALS ARE AFFORDABLE BY ALL
- ▶ EFFECTIVE SUPPORTIVE SUPERVISION
- ▶ SPECIALIST WILL BE AVAILABLE AT REGIONAL HOSPITALS



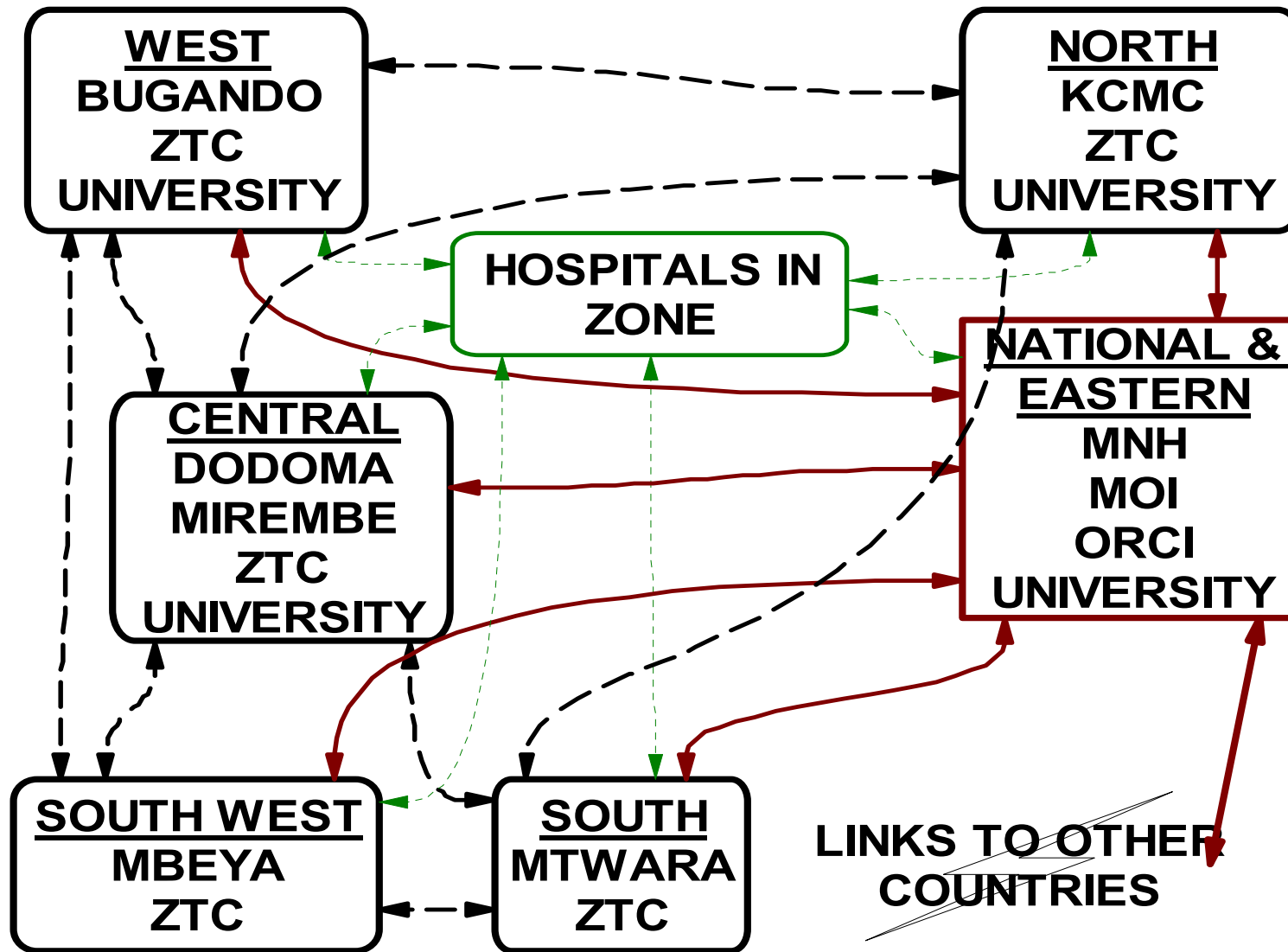
CHALLENGES

- ▶ **HIGH COSTS OF REFERRAL**
 - ✓ TO GOVERNMENT
 - ✓ TO PATIENTS
 - ✓ DELAYED/NO REFERRAL
- ▶ **LIMITED SUPERVISION**
 - ✓ COSTS
 - ✓ LIMITED NO. OF SPECIALISTS
- ▶ **LIMITED CONTINUING EDUCATION**

ALL COULD BE ADDRESSED BY ICT



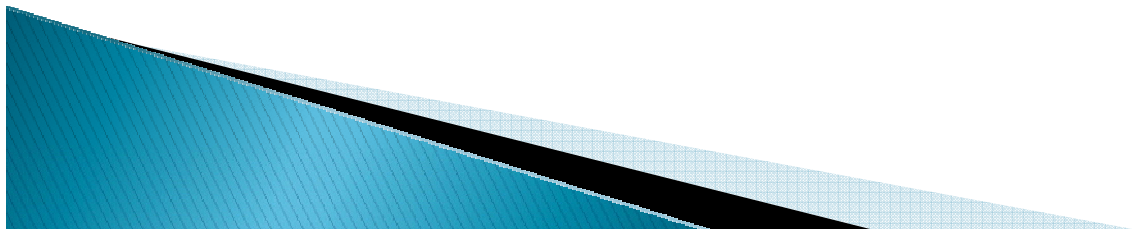
PLANNED TELEMEDICINE NETWORK




ZTC = ZONAL TRAINING CENTRES

FACILITIES FOR EACH HOSPITAL

- ▶ Video Conferencing
- ▶ E-Learning System
- ▶ E-Surgery (Zonal, Specialist & National)
- ▶ Telephone Communication
 - ✓ Mobile Telephone Closed User Group
 - ✓ Voice Over IP Telephony

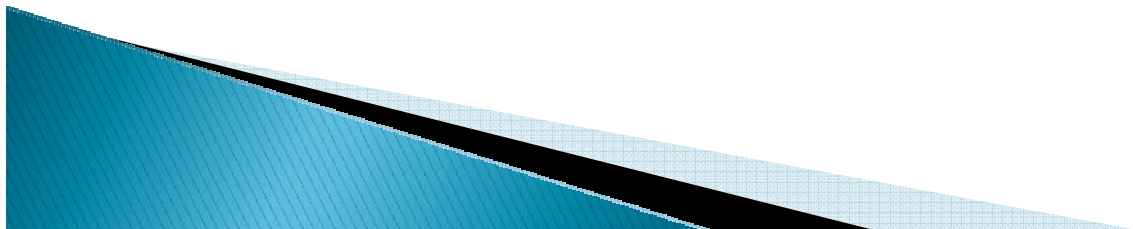


SERVICES TO BE PROVIDED


- ▶ E-Learning (Continuing Medical Education)
 - ▶ E-Conferences
 - ▶ Case Presentations
 - ▶ Journal Clubs
 - ▶ Tumour Boards
 - ▶ State of the Art Lectures
 - ▶ Consultations
 - ✓ Doctors & Patients
 - ✓ Dermatology, Radiology, Pathology
- 

FUNDING

- ▶ FIBREOPTIC BACKBONE - GOVT
- ▶ GOVERNMENT ALLOCATION
 - ✓ MOHSW BUDGET
 - ✓ UNIVERSAL ACCESS FUND
- ▶ PARTNER FUNDS
 - ✓ INDIAN GOVERNMENT
 - ✓ DANIDA
- ▶ WORLD BANK LOAN



STATUS

- ▶ PAN-AFRICAN E-NETWORK
 - ✓ FUNCTIONAL AT CANCER INSTITUTE
 - ▶ TELE-CENTRES
 - ✓ INSTALLED FOR 7 CENTRES
 - ✓ 3 OTHERS TO BE INSTALLED
 - ▶ VA HOSPITALS HAVE TELEMEDICINE CONNECTIONS
 - ▶ WORLD BANK LOAN
 - ✓ PROCURING A CONSULTANT
 - ▶ REQUIREMENTS & COSTS FOR A PILOT (NATIONAL & 5 OTHERS) IN PLACE
 - ▶ MOBILE TELEPHONE CLOSED USER GROUPS IN THREE HOSPITALS
- 



The United Republic of Tanzania
Ministry of Health and Social Welfare



Introduction to mHealth Tanzania Partnership

Tuesday, October 25th , 2011

mHealth Tanzania Partnership

- Innovative public-private-partnership, working closely with the Ministry of Health and Social Welfare of Tanzania, USG CDC, and numerous Tanzanian and international public and private sector partners
- Convenes multiple sectors, combining expertise and resources to implement sustainable and scalable public health programs that leverage the booming mobile phone infrastructure in Tanzania



Afya bora karibu na wewe.



Partnership Approach

- Scale nationally, mobile-centric information solutions that leverage mobile phones primarily, as well as PCs, smart phones, the web, and fixed line phone lines
- Work in concert with initiatives underway in the MOHSW and COSTECH, including integration with the national enterprise architecture
- Leverage expanding private sector interest in 'mHealth' and 'mMoney' to develop long-term sustainable PPPs
- Collaborate with other governmental and non-governmental implementing partners



Afya bora karibu na wewe.



Current mHealth Partnership Program & Activities

Programs:

- Integrated Disease Surveillance and Response (IDSR) System
- Blood Donor SMS Messaging System
- 'Healthy Pregnancy' SMS Service
- Core Indicator Reporting System

Activities:

- National mHealth Strategy Framework development
- Private sector partnership cultivation
- 'Community of Practice' Support



Afya bora karibu na wewe.

IDSR System



- Health facility workers report disease surveillance data by making a free call from the field using any mobile phone
- Diseases reported follow WHO standards:
 - Diseases of Public Health Importance
 - Epidemic-prone Diseases
 - Diseases Targeted for Eradication / Elimination
- Real-time SMS & email alerts are generated by the system for follow-up and action



Afya bora karibu na wewe.



Blood Donor Messaging System



Help address the critical blood shortages in Tanzania by assisting in communication with blood donors via SMS messages



Afya bora karibu na wewe.



'Safe Motherhood' SMS Service

Free SMS service for expectant families as part of national media campaign 'Mama Nipende' ('Mama Love Me')

Appointment reminders & tips on keeping Mama and Baby healthy, timed to expected delivery date

- 1. Creating demand for and use of Anti Natal Clinic and PMTCT services ("enrolling")**
- 2. Supporting regular care and treatment regimens visits ("adhering")**
- 3. Supporting increasing health workers professionalism and efficiency ("sustaining")**



Core Indicator Reporting System

- Scale core indicator reporting across vertical health programs
- Collect few key indicators in a reliable, timely and cost effective manner
- Direct data transfer to District Health Information System (DHIS), the national HMIS being rolled-out nationally



Afya bora karibu na wewe.



Private Sector Partner Cultivation

Create mutually beneficial PPP opportunities that create value to Private Sector Partners through:

- New market / business development
- Public Relations
- Brand appreciation through associations
- Marketing value (Share of voice)
- National/local/ community contribution (CSR)
- Improved government relationships



Afya bora karibu na wewe.



mHealth Strategy Framework Development

Support for Framework development, including the following key areas:

- *Strategy and Public Health 'Business' Alignment:* Strategy and investment planning with a focus on health impacts and alignment with existing Ministry strategies
- *Policy and Governance:* Laws, regulations, governance principles, ethics
- *Management:* Organization of responsibilities and decision-making functions to coordinate the people, processes, and technology of mHealth;
- *Organization and Skills:* Structure, hierarchy, resources and facilities in Ministry
- *Technology and Architecture:* Infrastructure of a mHealth and eHealth systems



AFya bora karibu na wewe.



Community of Practice



Assist the Ministry in convening ‘practitioners’ of mHealth in Tanzania to share experiences and opportunities for collaboration, including:

- Implementing Partners
- Donor Organizations
- Government stakeholders and Tanzania Ministries
- Private Sector participants, including telecommunications companies

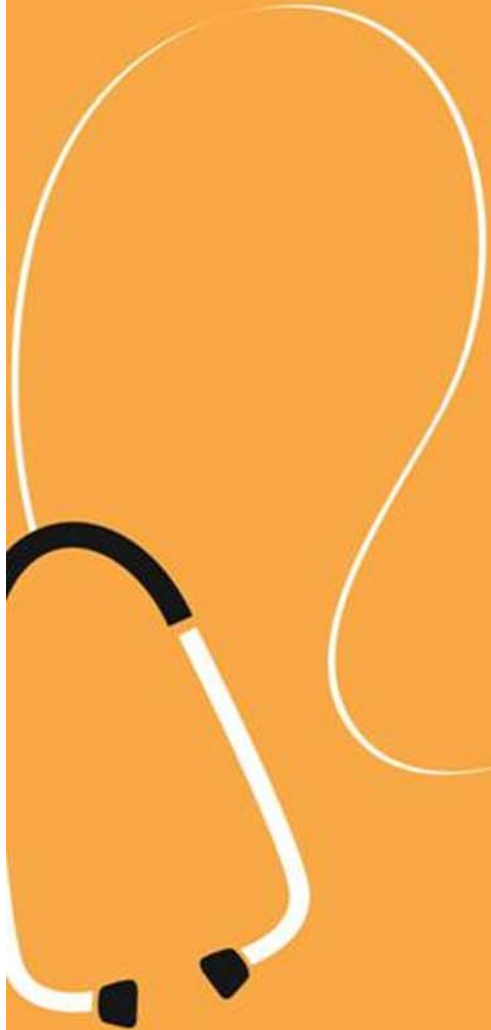


Afya bora karibu na wewe.



Appendix

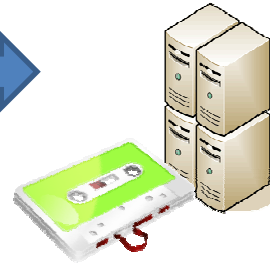
Afya bora karibu na wewe



How IDSR System Works



Health Facility worker places free call to system from any mobile phone



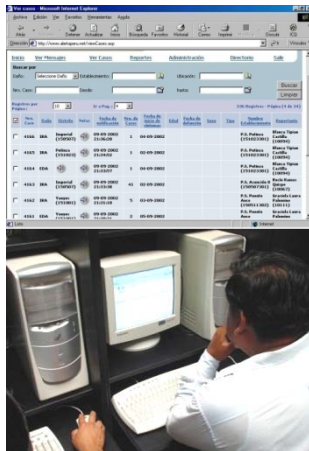
Swahili voice recording asks report questions & provides pre-defined responses the caller selects using numeric keypad



Responses are repeated; Report ID # provided verbally and via SMS to caller



Predefined alerts and notifications are automatically sent to health management officials for response



Data is immediately available for analysis & action

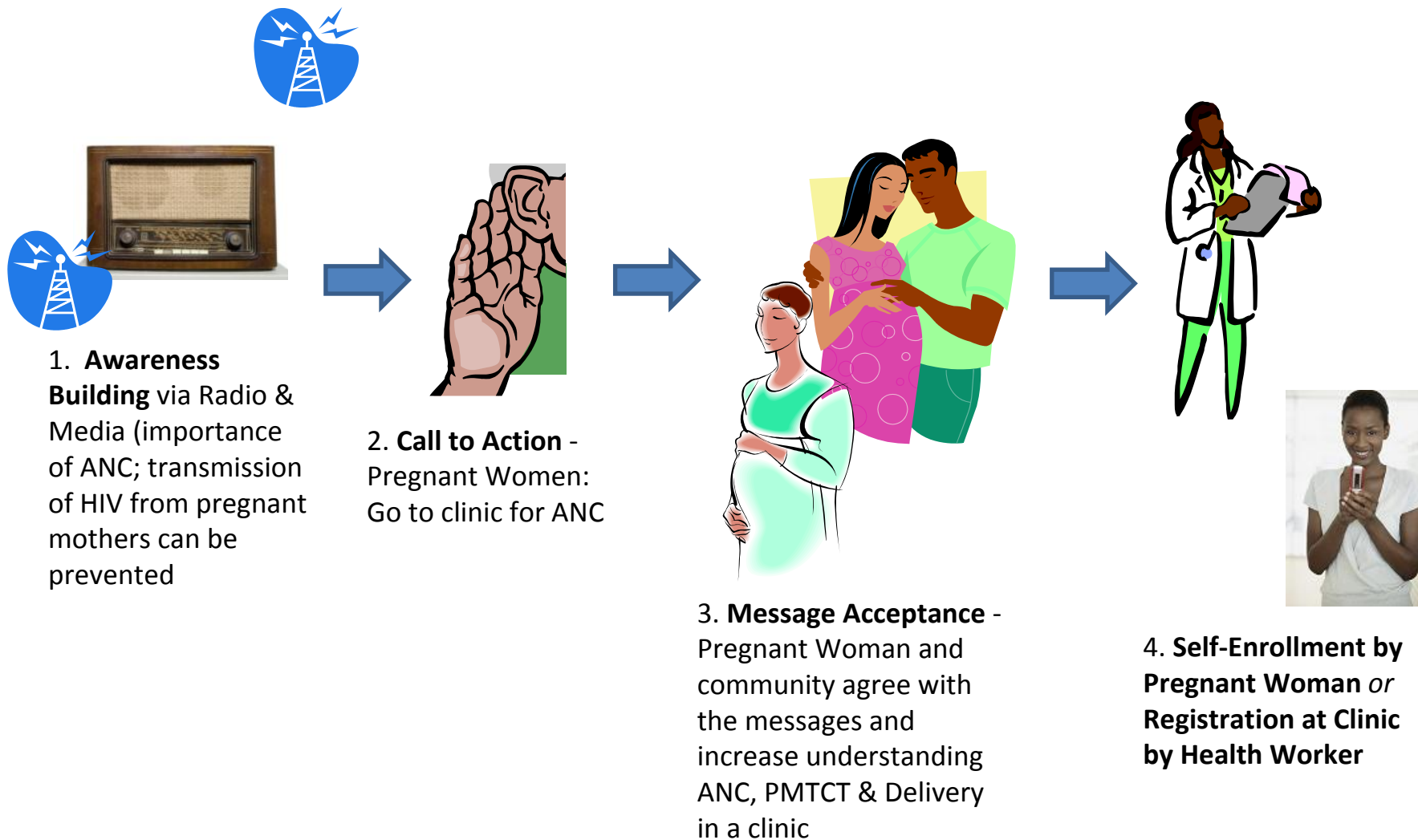


Weekly reports and case notifications are automatically aggregated



HOW HEALTHY PREGNANCY SMS SERVICE WORKS:

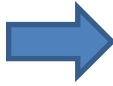
Step 1: Engage All Pregnant Women & Members of the Community



Step 2: Process



5. **SMS Messages** sent to pregnant mother for: appointment reminders; drug adherence; safety and nutrition information relevant to mother's stage of pregnancy.



6. **Delivery Support** via SMS messages encouraging delivery in clinic, safe breastfeeding practices, etc.



7. **Post-Natal Care** providing information about nutrition, vaccinations, and healthy family practices

