



**Partners In Health
Inshuti Mu Buzima**

Lessons from Rwanda: Improving Maternal and Child Outcomes through Health System Strengthening



Antoinette Habinshuti

Deputy Country Director of Inshuti Mu Buzima, PIH Rwanda



Overview of Maternal Health

The preliminary report of the 2010 Rwanda Demographic and Health Survey (RDHS) indicates that the percentage of deliveries in conventional health facilities has substantially increased.

- From 52% in 2007-2008 to 69% in 2010.
- 82 % of births in urban areas take place in modern health facilities compared to 67 % of births in rural areas.
- The estimated maternal mortality ratio in Rwanda is 487 maternal deaths per 100 000 live births according to the 2010 RDHS, down from 750 deaths in 2005 and 1071 deaths during the 1995-1999 period.



Where is Rwanda coming from?

Previous data:

In Rwanda, 1 child in 10 does not live to the age of five.

Mortality rates for infants and children under the age of five increased following the genocide in 1994.

However, in the last two years, these rates – infant and under-five mortality – have fallen significantly (by 28 percent for infant mortality and by 32 percent for under-5 mortality).



Rwandan children frequently suffer from malnutrition. According to the 2005 Demographic and Health Survey (2005 DHS), 23 percent of children under the age of five are underweight and 4 percent are severely underweight.

Rwanda's maternal mortality rate remains one of the highest in Sub-Saharan Africa. According to the 2005 DHS, in 2005 one pregnant woman in 130 died due to complications in pregnancy or delivery.

Source: USAID -

http://www.usaid.gov/rw/our_work/programs/maternalchildhealth.html



OBJECTIVES FOR PRESENTATION

- **PARTNERS IN HEALTH/INSHUTI MU BUZIMA: PIH/IMB**
- **OVERVIEW IN RWANDA: THE BEGINNING**
- **HOW WE APPROACH HEALTH SYSTEMS STRENGTHENING**
 - AT NATIONAL LEVEL
 - AT LOCAL LEVEL
- **PIH/IMB MATERNAL AND CHILD HEALTH OUTCOMES**
- **COMMUNITY HEALTH TRAINING AND SUPERVISION**
- **A CLOSER LOOK AT PIH MENTORING AND SUPERVISION**

Background – Rwanda

- ◆ Population: ~11m. inhabitants.
- ◆ Rural population: 84% (DHS 2010)

Generalized HIV epidemic

- ◆ 3% prevalence
- ◆ 4.3% among pregnant

◆ Rapid scale up of HIV services

- ◆ 420 PMTCT sites (87%)
- ◆ 454 VCT sites (94%)
- ◆ 336 ART sites (69%)
- ◆ 96,751 (93% of those in need)





Background – PIH

Dedicated to delivering quality health care to people and communities devastated by joint burdens of poverty and disease

PIH's work has three goals:

- to care for patients
- to alleviate the root causes of disease and
- to share lessons learned around the world



2005: PIH Invited by the Government to Rwanda

Zanmi Lasante doctors bring Haiti lessons to three remote districts

Initial goal: to scale up the national HIV prevention and treatment program in rural areas where it had been lagging

Vision: to comprehensively strengthen the public health system in rural, underserved areas of the country under the leadership of the MOH and in partnership with the Clinton Health Access Initiative

PIH/IMB-supported Health Facilities in Rwanda

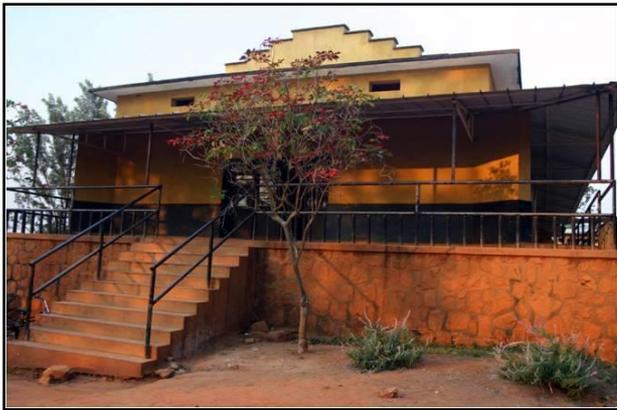
3 District Hospitals & 36 Health Centers
with a catchment area of 800,000 people



PIH/IMB works with the MOH to provide care to an estimated 134,000 children under five and 180,000 women of reproductive age per year

Rwinkwavu District Hospital and National Training Center

2005 vs 2008





**Rwinkwavu District
Hospital Pediatric
Ward: before and after**

Rwinkwavu Laboratory Services: before and after





Building Butaro District Hospital

Local labor = Community Investment



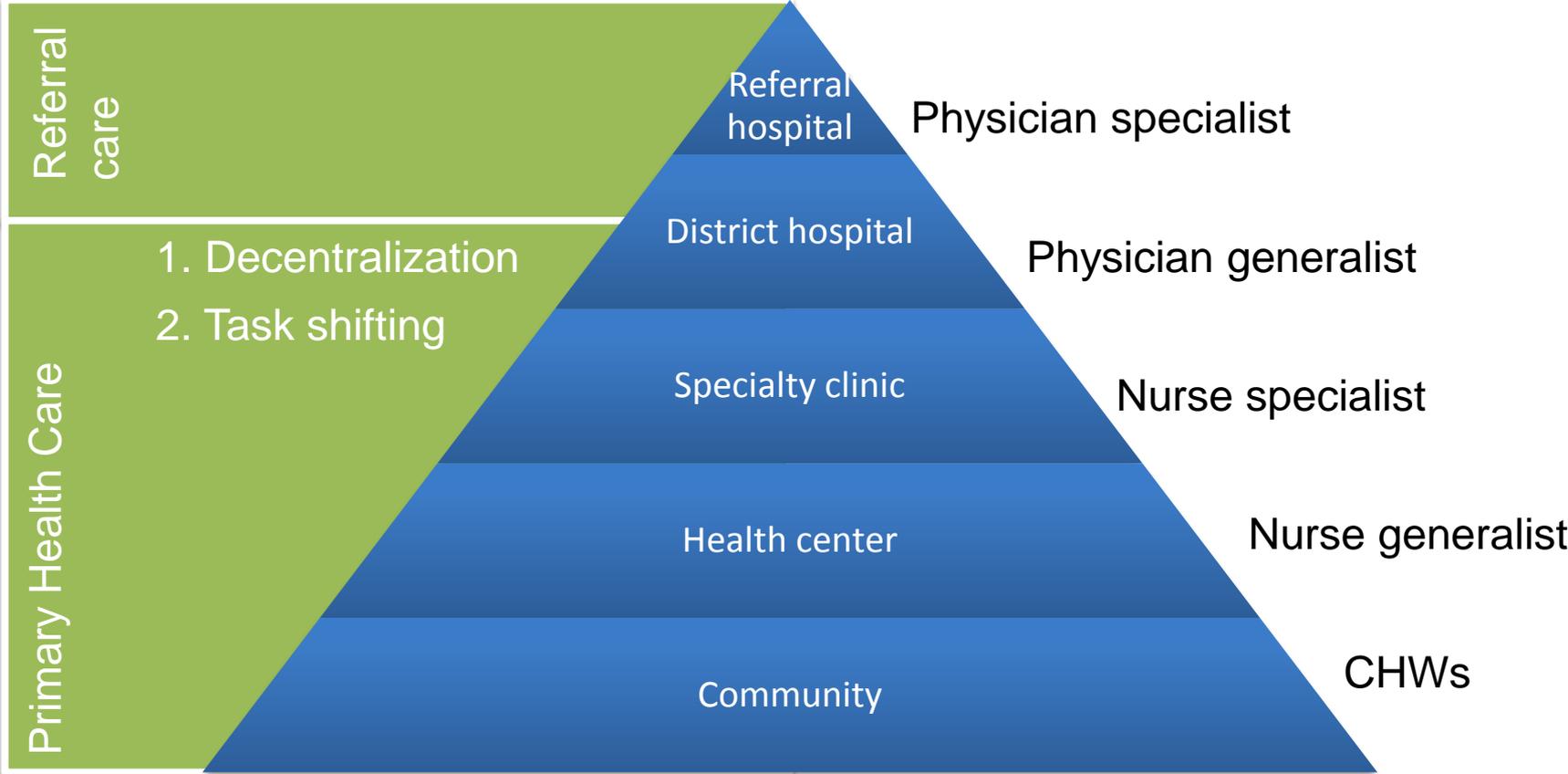


Butaro District Hospital

President Kagame inaugurates Butaro District Hospital



Health Care System in Rwanda



Integration

Referral Care

Cardiology

Neurology

Endocrinology

Oncology

Gastroenterology

Pneumonology

Hematology

Psychiatry

Internal medicine

Rheumatology

Infectious diseases

NCDs

Family medicine

HIV/TB

Mental health

CH

Chronic care

Referral
hospital

Physician specialist

District hospital

Physician generalist

Specialty clinic

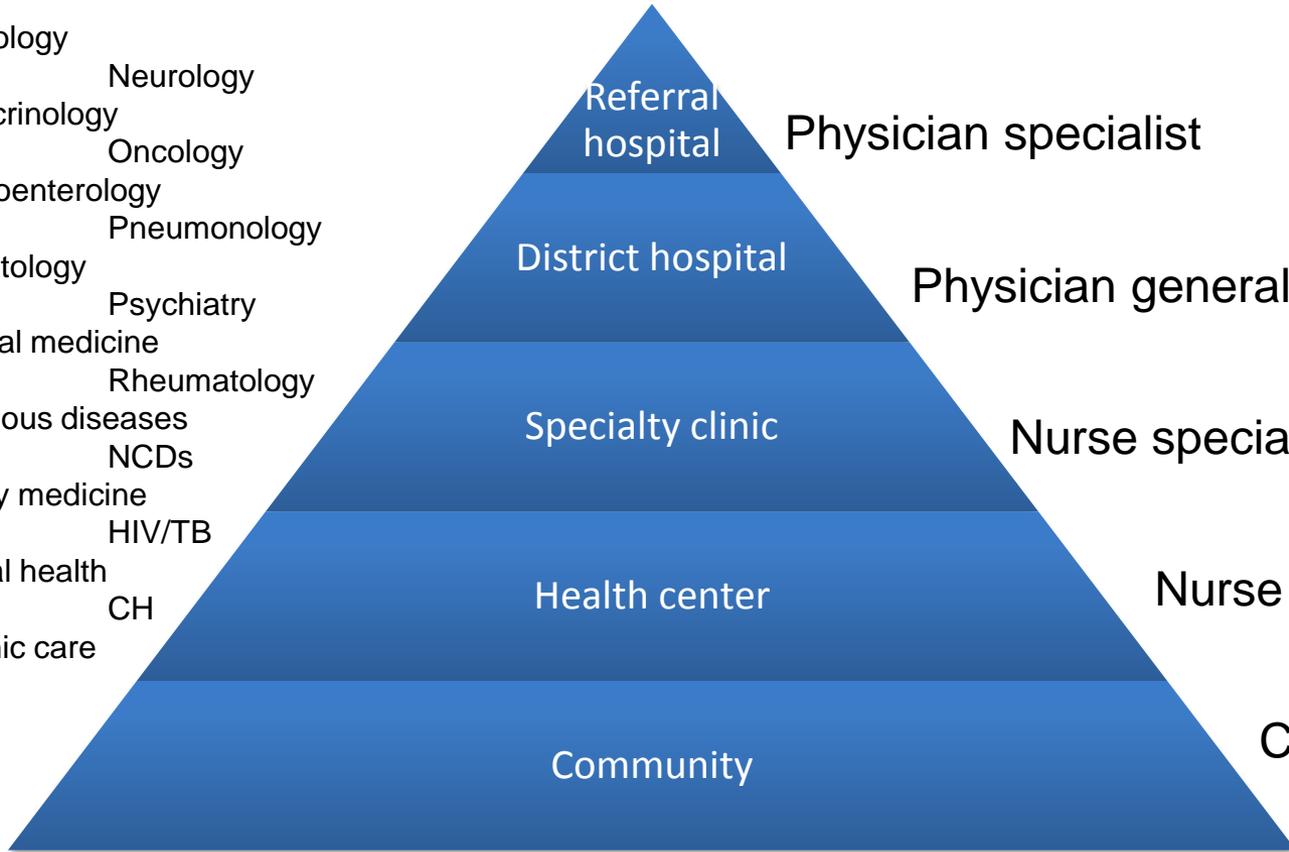
Nurse specialist

Health center

Nurse generalist

Community

CHWs



Improved Maternal and Child Health



*First Baby born at Butaro District Hospital
2011*



Key lessons learned

- **Continuum of services;**
- **Quality of antenatal care;**
- **Minimizing the Travel Distance for Pregnant Women**
- **Mentoring and Enhanced Supervision in Health Centers (MESH)**



A Continuum of Care

- Importance of the MOH-PIH collaboration in Rwanda to provide a continuum of care and integration of services— from community health workers, transfers and follow-up at Health Centers and Hospitals.
- High quality maternal and child health services means getting all of these steps right.

CHW Training and Supervision



PMTCT

Prevention of Mother-to-Child Transmission of HIV

COMMUNITY HEALTH WORKER



ENGLISH

Reproductive Health

A COMMUNITY HEALTH WORKER TRAINING



Family Planning

COMMUNITY HEALTH WORKER TRAINING



Nutrition and Malnutrition

COMMUNITY HEALTH WORKER





Community Health Workers: Linking Communities with Health Facilities

Example District CHW Profile - Southern Kayonza

675 multidisciplinary CHWs (binomes) following 34,500 households through monthly visits

252 maternal health CHWs, approx. 1 per 150-200 households

1,700 CHWs providing daily accompaniment to 5,500 patients on HIV, TB, or chronic disease treatment

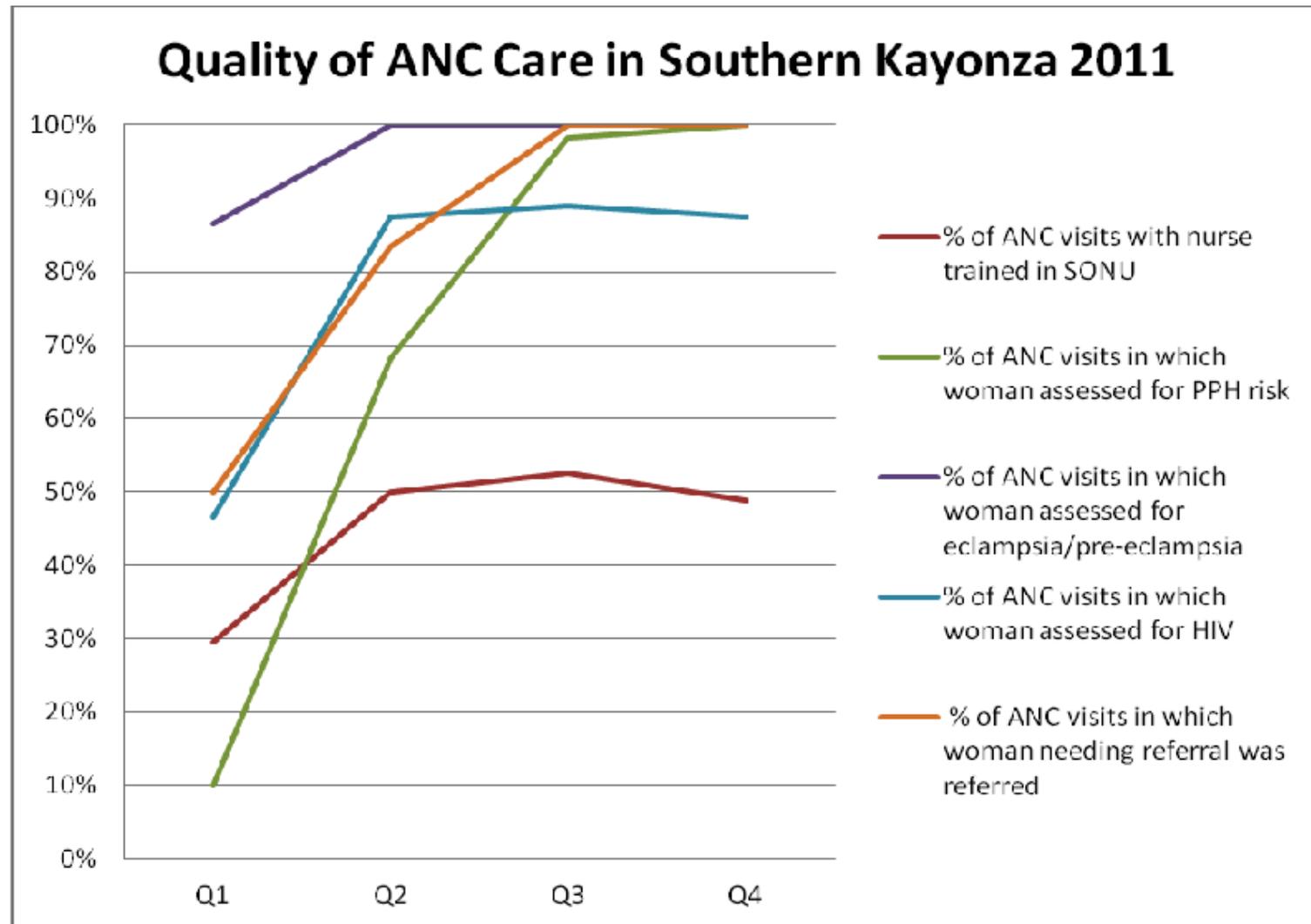


Community-Based Accompaniment Outcomes

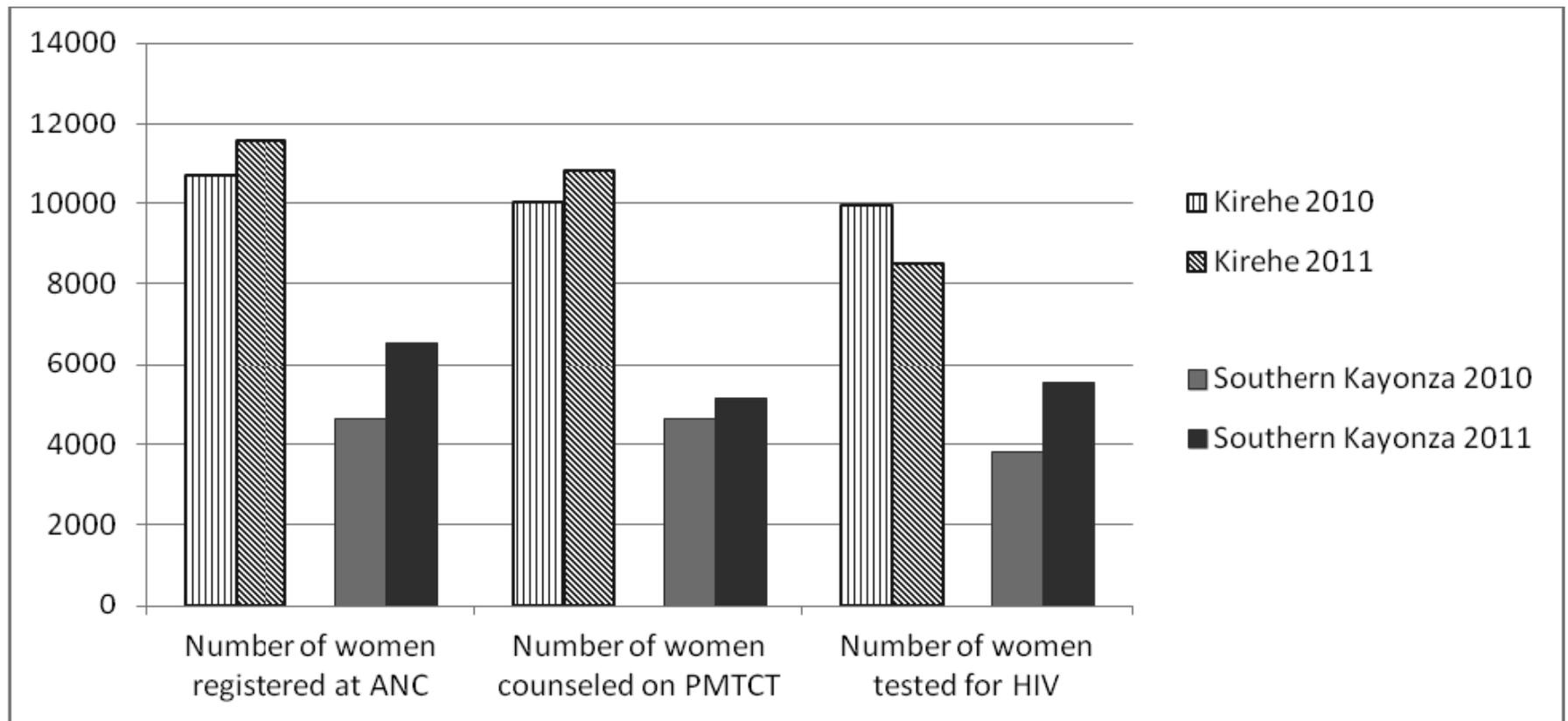
- CHWs integrated within the health system to provide additional support at community level for ART patients
- Community support (including CHWs) achieved 92% retention over two years
- Compared to 70% retention in sub-Saharan Africa
- Low loss to follow-up (2.7%), mortality (5.0%) and high viral suppression (97.5% less than 500 copies/mL)
 - - Among the best outcomes reported worldwide

Source: Rich ML et al. Excellent clinical outcomes and high retention in care among adults in a community-based HIV treatment program in rural Rwanda. J Acquir Immune Defic Syndr 2012;59:e35–e42.

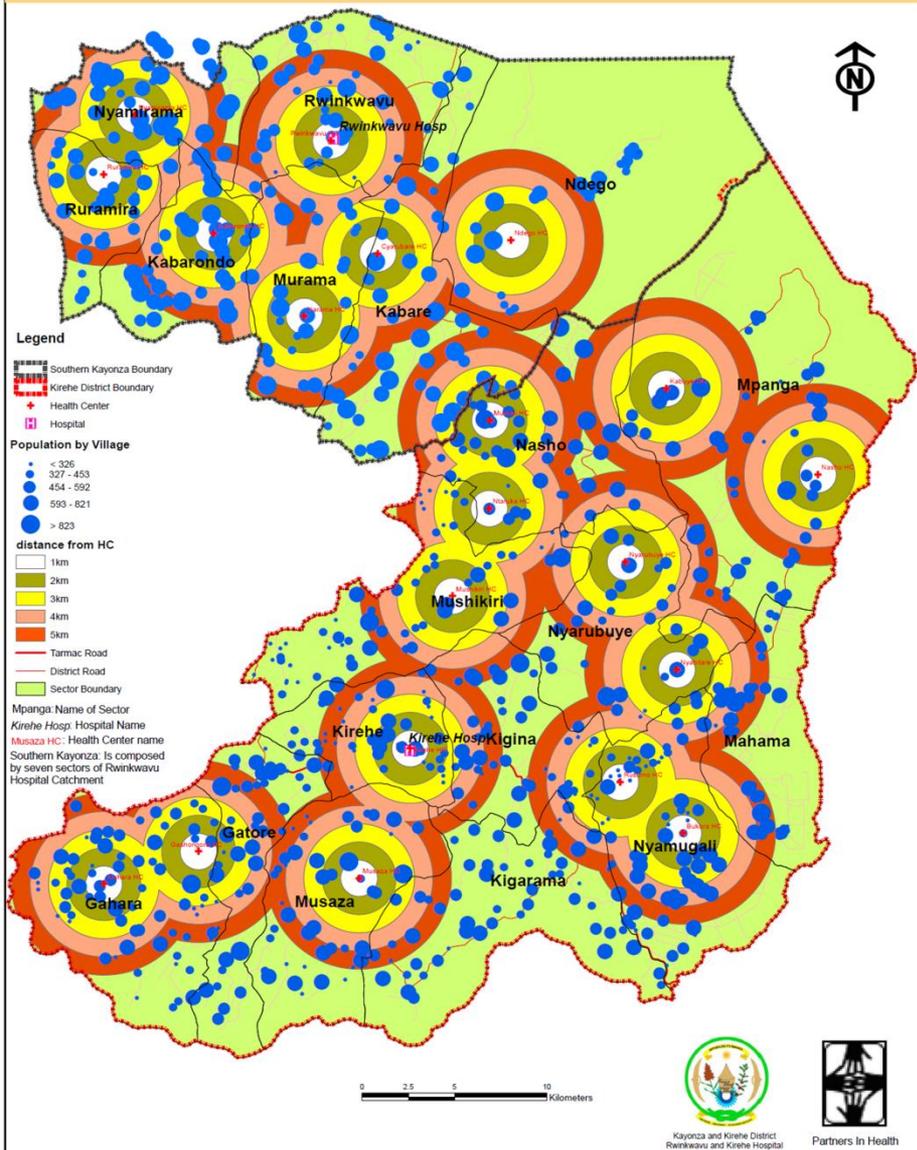
Quality of antenatal care in southern Kayonza District, 2011



Antenatal attendance and HIV counseling and testing in S. Kayonza and Kirehe Districts, 2010-2011



Southern Kayonza and Kirehe District Access to Primary Health Care



Minimizing the Travel Distance for Pregnant Women

- Villages are indicated by blue circles and are sized proportionally to population size.
- The particular interest was to visualize the proportion of villages within five kilometers (Euclidean Distance) to the nearest health facility.
- Some villages are very far from health facilities, so new health facilities are needed to improve spatial access to health care.

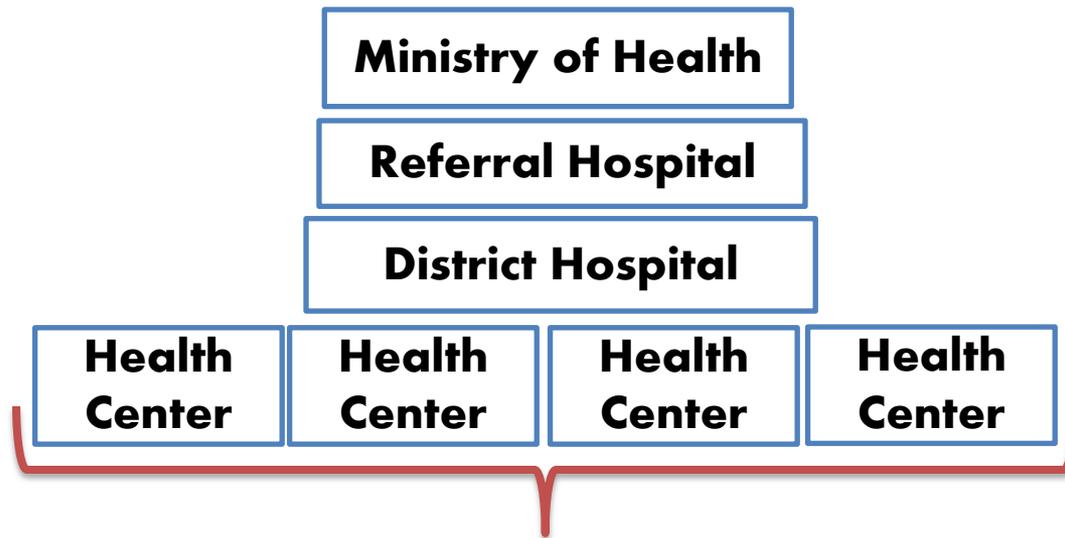
Preliminary data in Kayonza, Kirehe and Burera Districts, have shown a drop in child deaths of approximately 55% from 2007 to 2010.



Mentoring and Enhanced Supervision in Health Centers (MESH)



MESH Program Aims



MESH Intervention

- 1. Decentralized training of HC nurses**
- 2. Ongoing, on-site mentoring of HC nurses**
- 3. Routine mentoring, supervision & data for QI**

**Improved
nurse
practices**

**Improved
quality of care
at health centers**

**Improved
patient
outcomes**

Mentoring Tools

- Clinical observation checklists
- Facility/operations checklists
- Knowledge questionnaire
- Case scenarios
- Patient case recording forms (for nurses)
- Supervisor activity log
- Issue tracking log
- Nurse problem resolution form

Observation Checklists: Nurse Practices

	Yes, and no symptom present	Yes, and symptom present	No, not done
6. Did the health worker evaluate diarrhea?			
<u>If no OR diarrhea not present, skip to 7.</u>			
a) Does the health worker ask for how long the child has diarrhea?		write value ____ days	
b) Does the health worker ask if there is blood in child's stool?			
c) Does the health worker check for sunken eyes by pressing around the eyes?			
d) Does the health worker check if the child drinks eagerly/drinks poorly/is not able to drink by offering the child something to drink?			
e) Does the health worker pinch the skin of the abdomen to see how it goes back?			

Systems Improvement

In-depth insight into health center operations

- Identify operational/systems issues
- Problem-solving with nurses and titulaire
- Feedback to district hospital and PIH
- Promote a culture of systems improvement and advocacy



BEFORE MENTORING



AFTER MENTORING

MESH as Continuous Quality Improvement

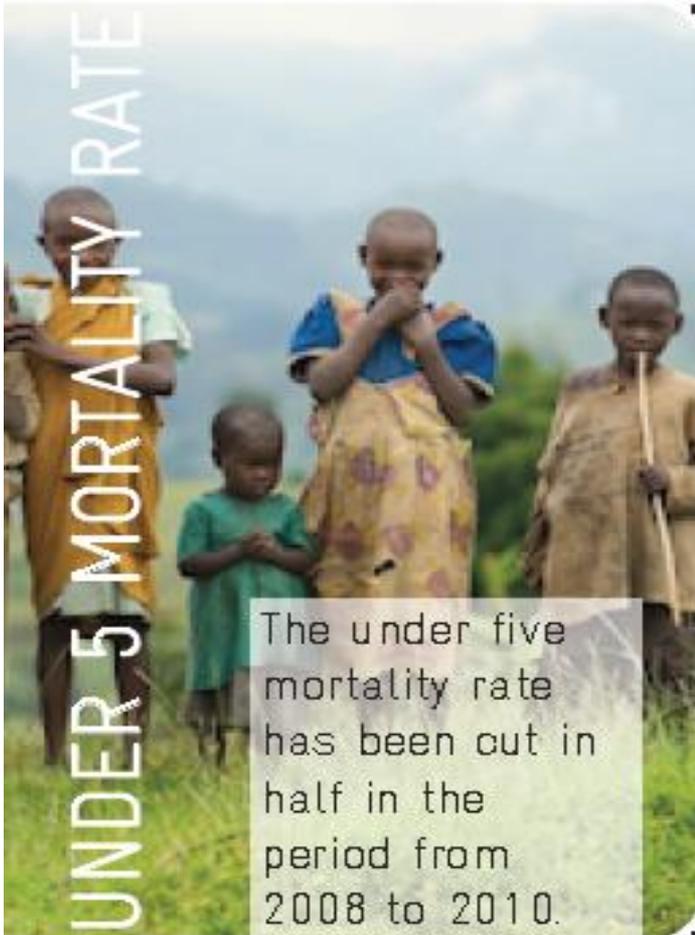


Neonatal Health

- Decreasing **neonatal** mortality is high priority to further reduce U5 mortality
 - Staff:
 - training in specialized neonatal resuscitation for 15 hospital doctors and nurses
 - bedside teaching from visiting neonatology team
 - Systems
 - Neonatal special care nurseries and ensuring resuscitation equipment at Health Centers
 - Aspire to become “Neonatology Centers of Excellence”
- The number of neonates transferred to referral hospitals dropped from 56 cases in 2010 to 21 cases in 2011

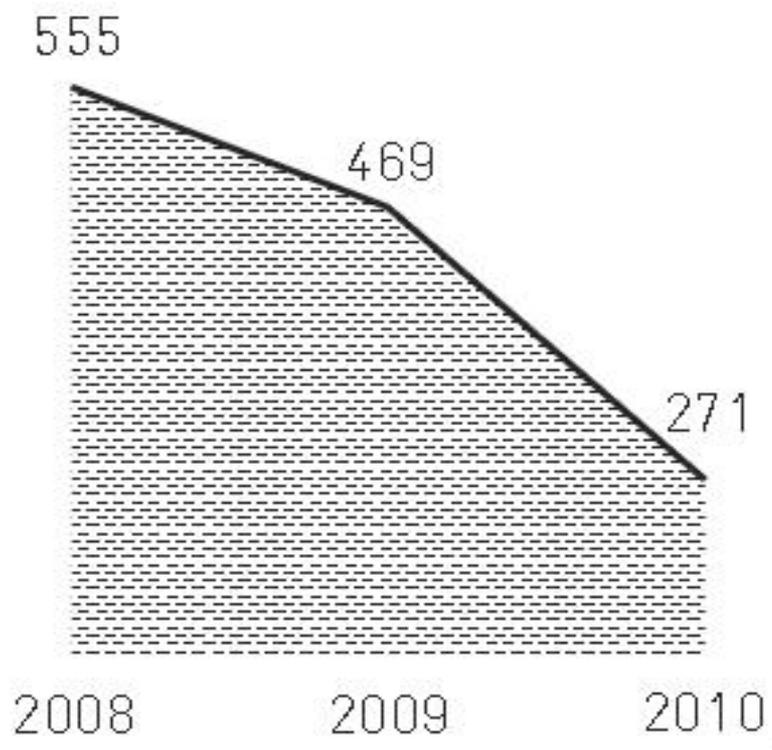


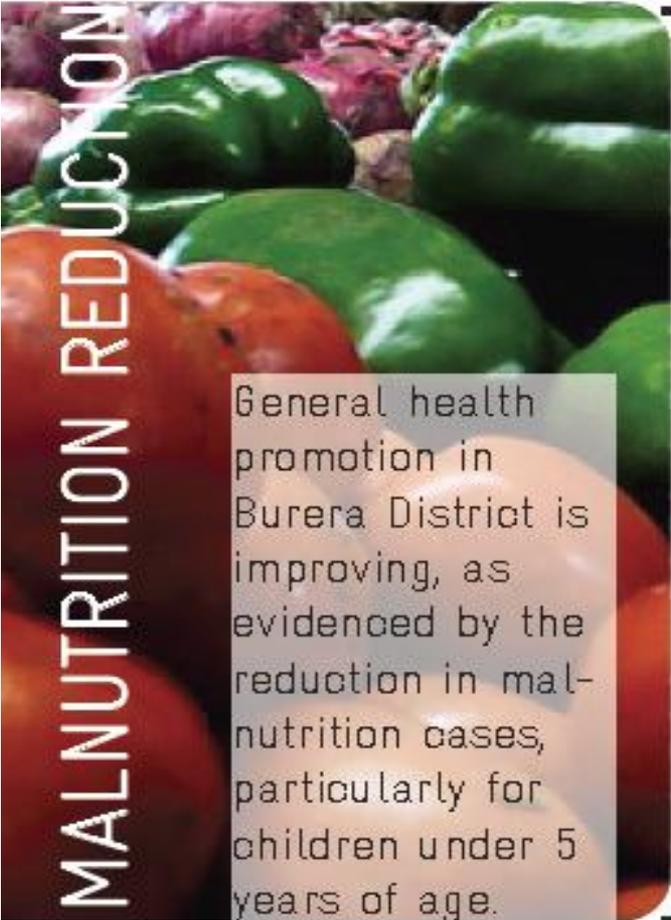
UNDER 5 MORTALITY RATE



The under five mortality rate has been cut in half in the period from 2008 to 2010.

REPORTED MORTALITIES





General health promotion in Burera District is improving, as evidenced by the reduction in malnutrition cases, particularly for children under 5 years of age.

MALNUTRITION CASES

