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# Trends in Anemia Prevalence and Control Programs in Rwanda

Presentation at the Multi-Sector Anemia

Partners' Meeting

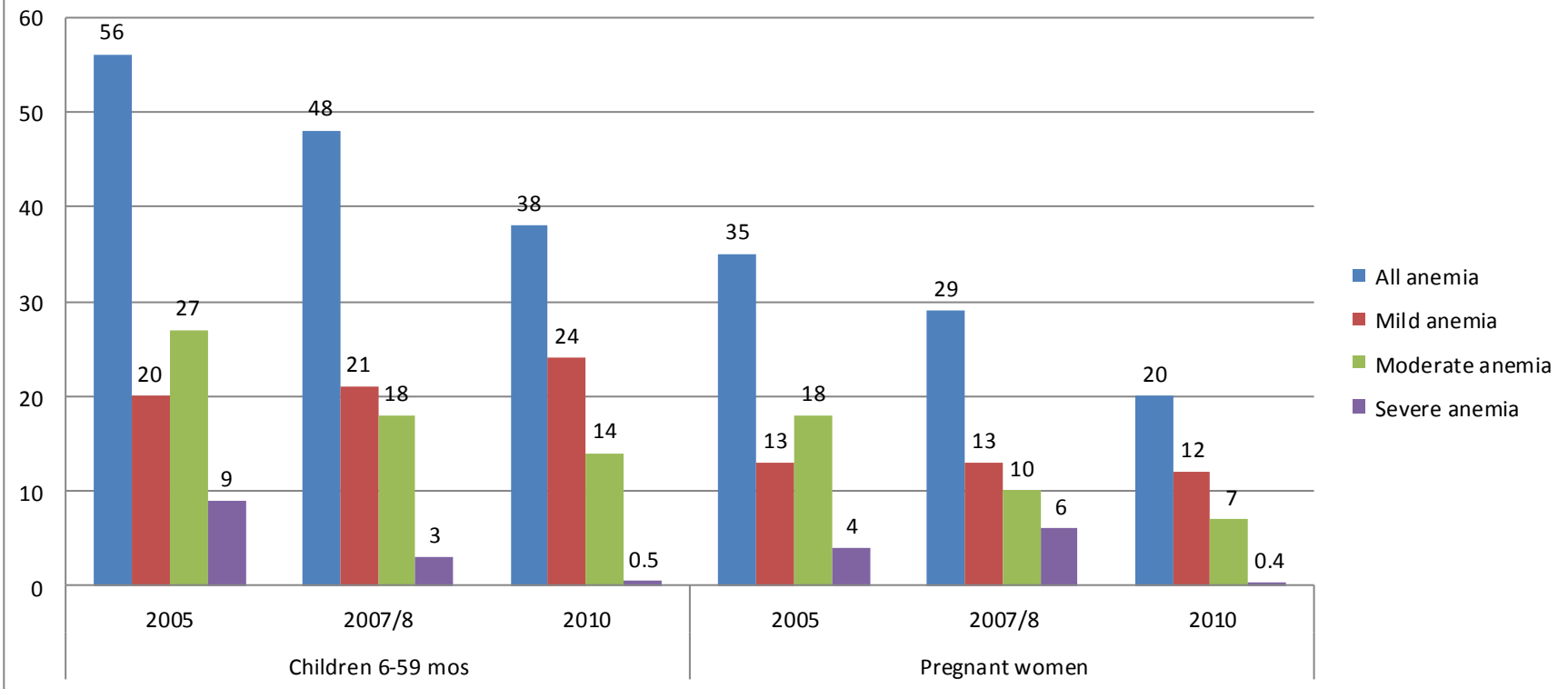
October 18, 2013

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Technical Lead in Nutrition, MCHIP

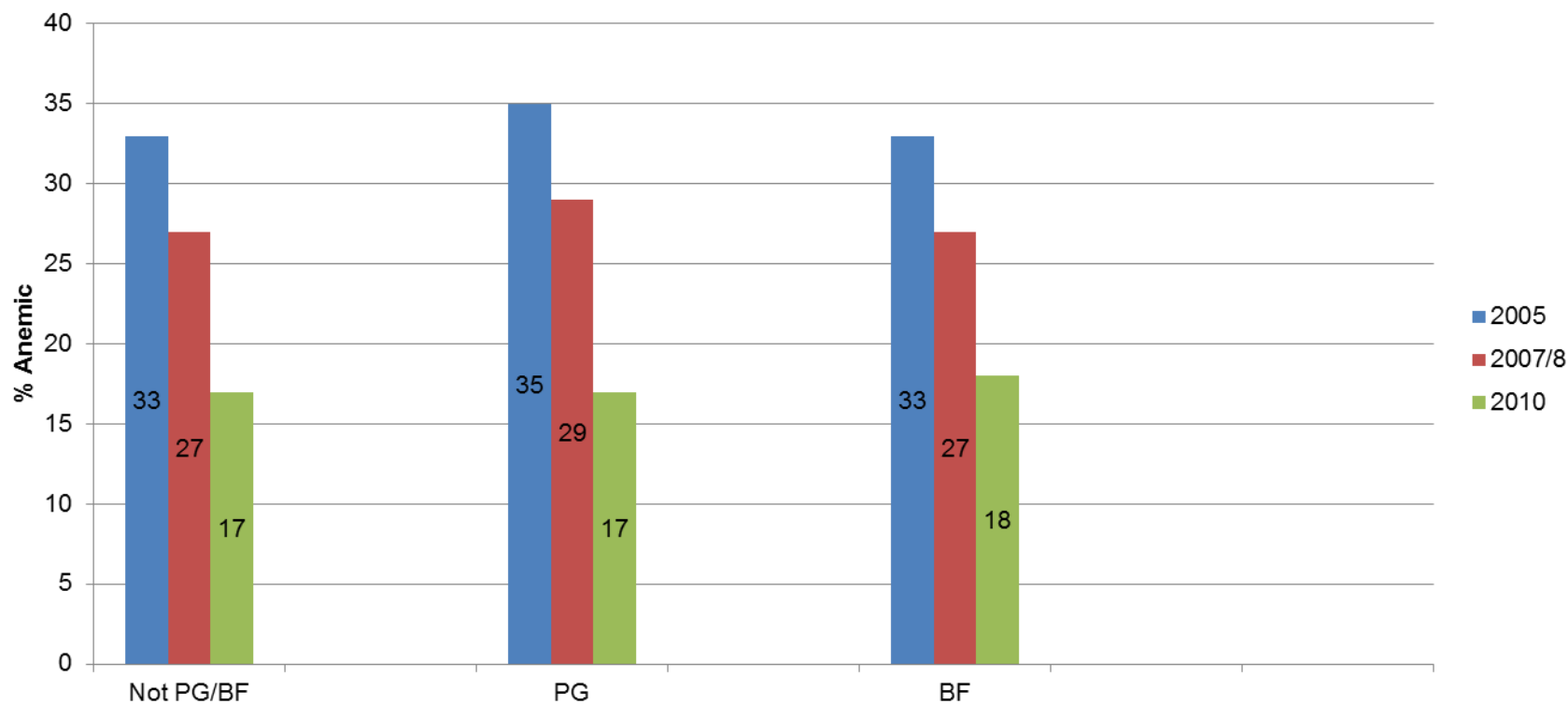
# Anemia Prevalence is Declining in Rwanda

**Trends in Anemia in Children 6-59 months and Pregnant Women 2005-2010**

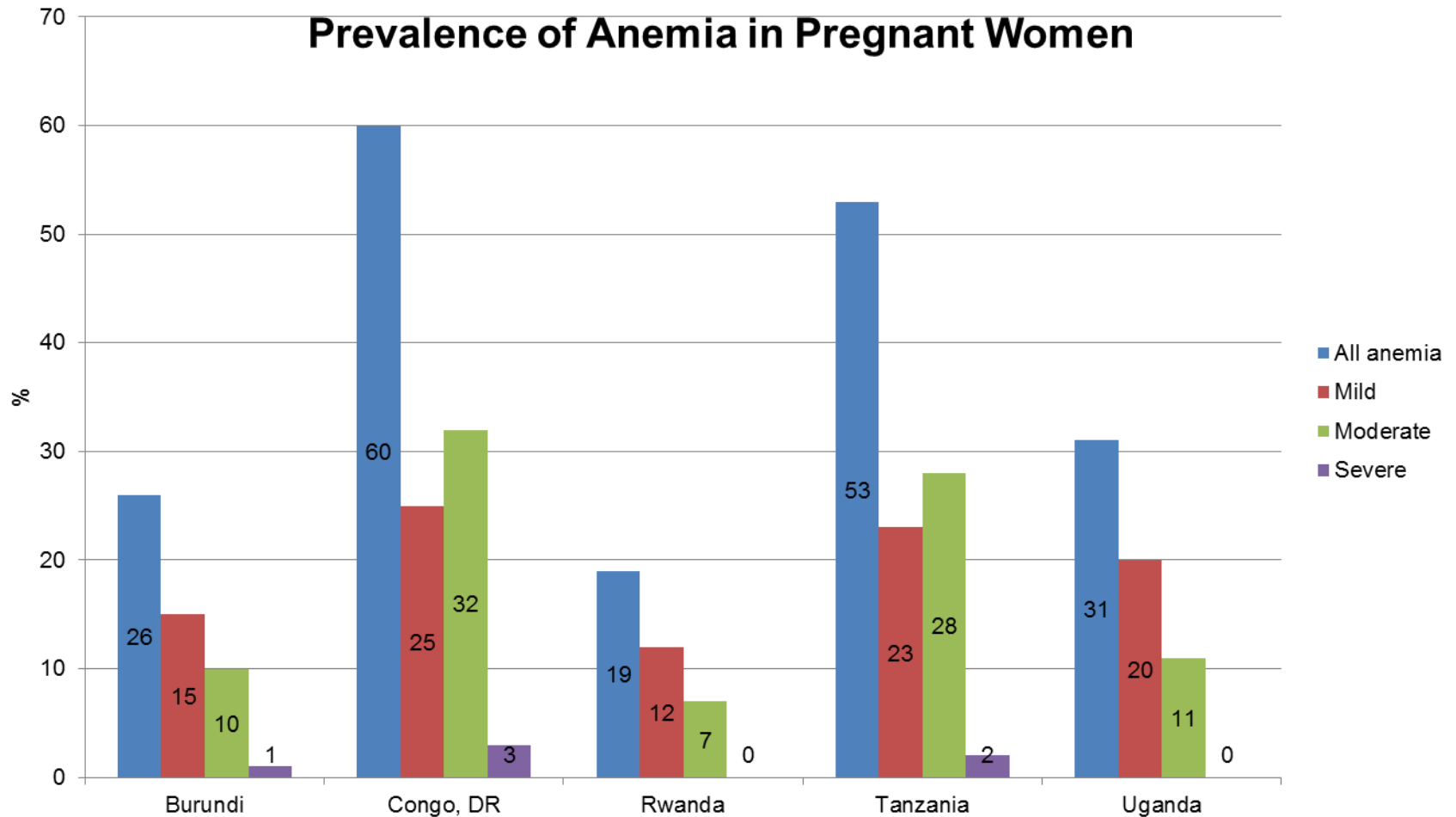


# Trends in Anemia Prevalence in Women by Reproductive Status

## Trends of Anemia in Rwandan Women by Reproductive Status 2005-2010

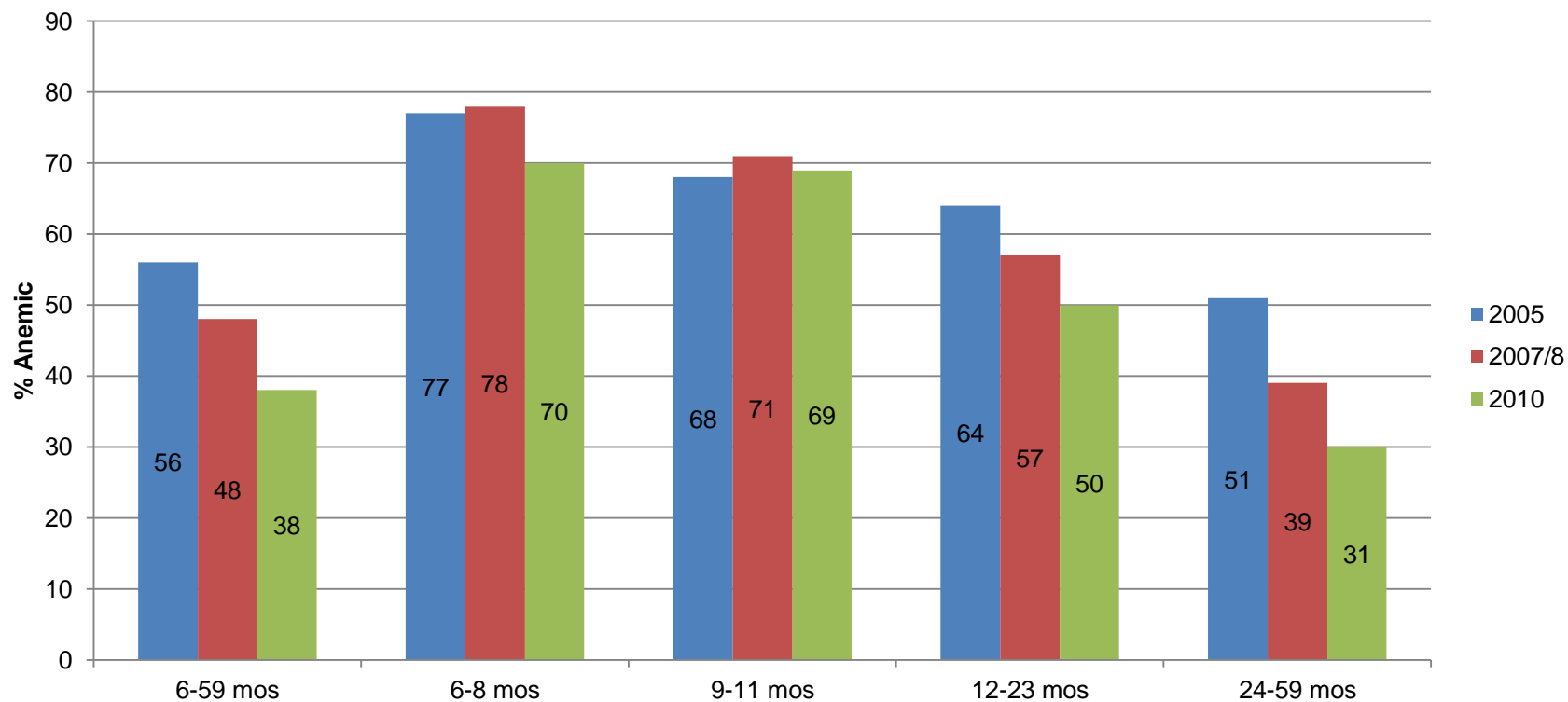


# Regional Comparisons

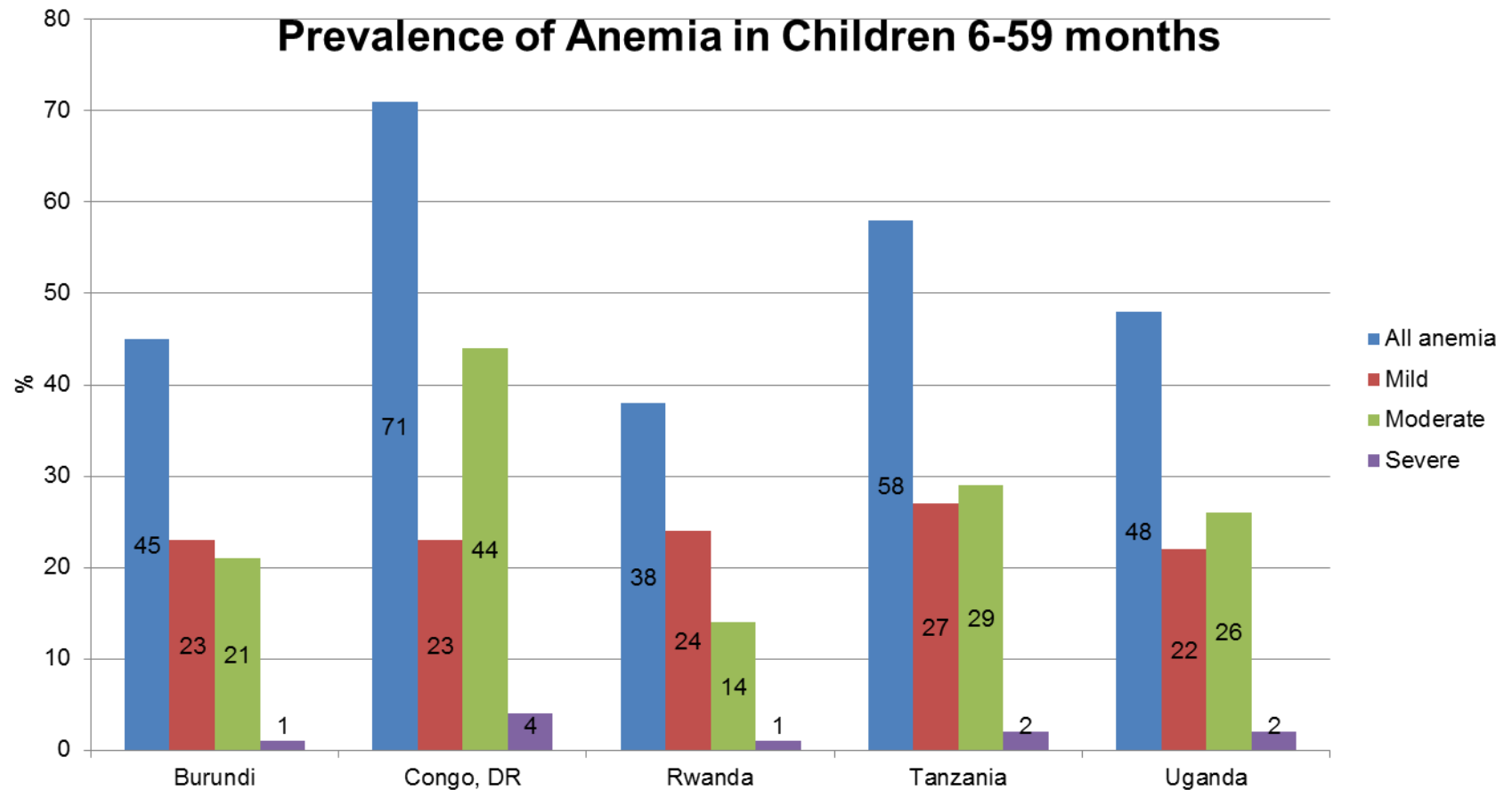


# Trends in Anemia in Children by Age Group

## Trends of Anemia in Rwandan Children 6-59 Months 2005-2010



# Regional Comparisons



# Regional Comparisons—Anemia in All Children and Children 6-11 Months

	Children 6-59 months	Children 6-11 months
Burundi 2010	45%	70%
Ethiopia 2011	44%	66%
Congo, DR 2007	71%	85%
Rwanda, 2010	38%	70%
Tanzania 2010	59%	80%
Uganda, 2011	49%	68%

# Major Direct Causes of Anemia

- Poor, insufficient, or abnormal red blood cell production (poor dietary intake and/or absorption of iron and other micronutrients; infectious diseases; increased requirements due to disease and growth)
- Excessive red blood cell destruction (malaria)
- Excessive red blood cell loss (helminths, bacterial or viral infections that cause blood loss; reproductive-related losses)



# What Interventions will Decrease Anemia—Related to the Causes?

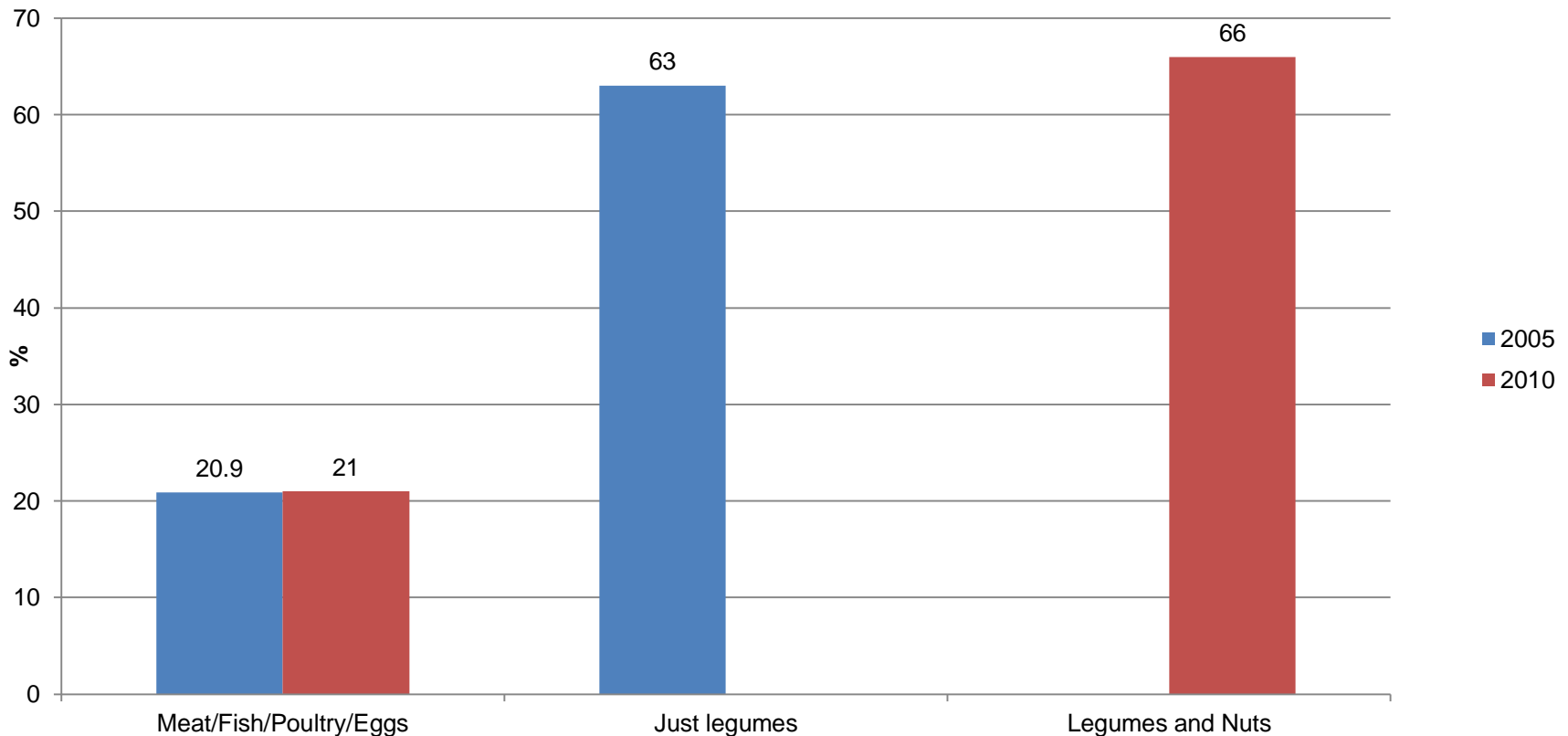
- Improving intake of iron
  - Improved dietary intake
  - Supplementation
  - Food fortification
  - Food processing
- Preventing & Controlling Malaria
  - Sleeping under LLINs
  - IPTp, IPTi

# What Interventions will Decrease Anemia—Related to the Causes?

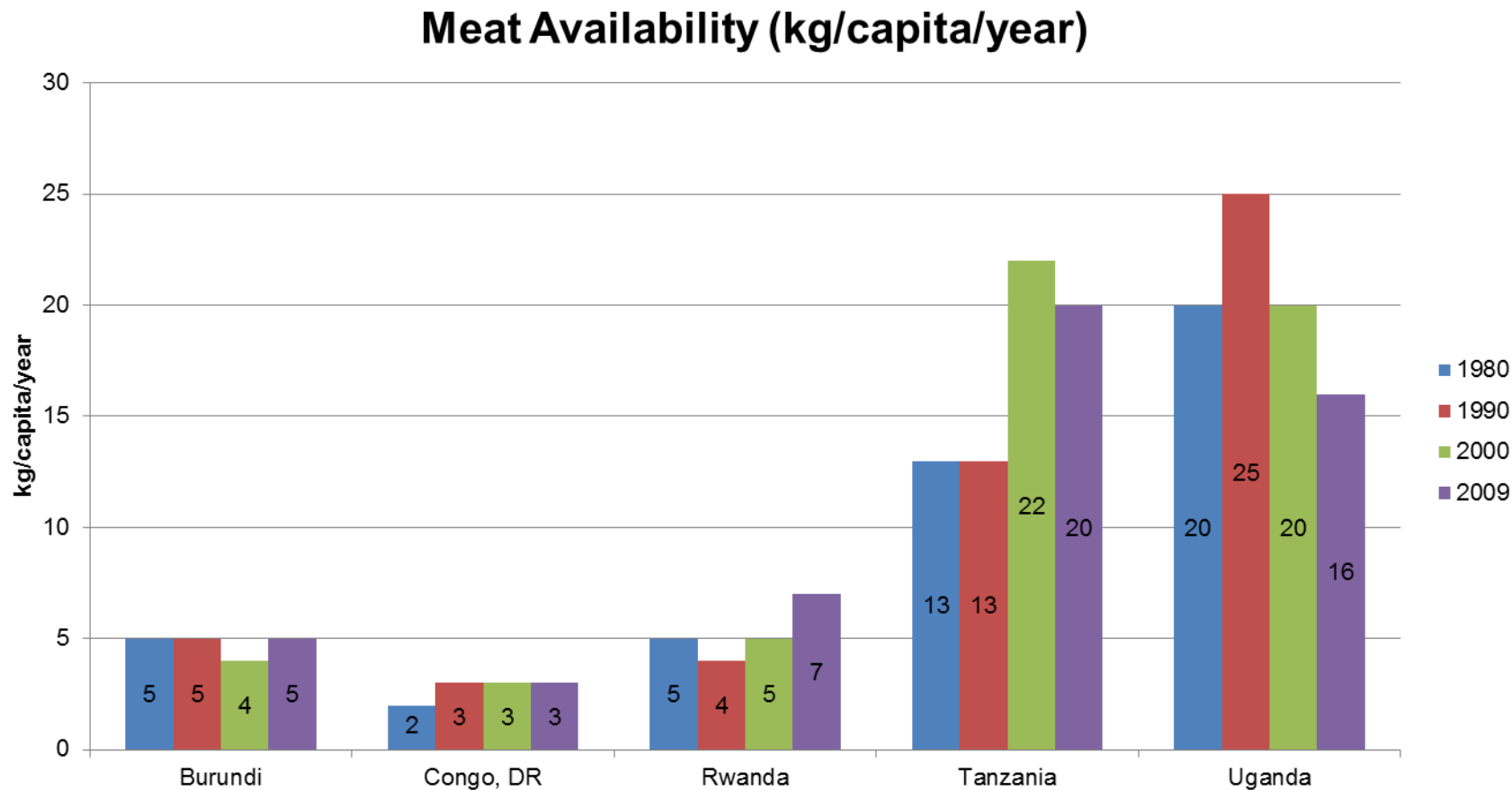
- Preventing & Controlling Diarrhea
  - ORS
  - Continued and recuperative feeding
  - Clean water and sanitation access
- Reproductive losses
  - Modern contraceptive use
- Preventing & Controlling Hookworm & Schistosomiasis
  - Deworming for hookworm

# Has Iron Intake Improved 2005-2010?

## Dietary Intake of Iron-Rich Foods in Children 6-23 months

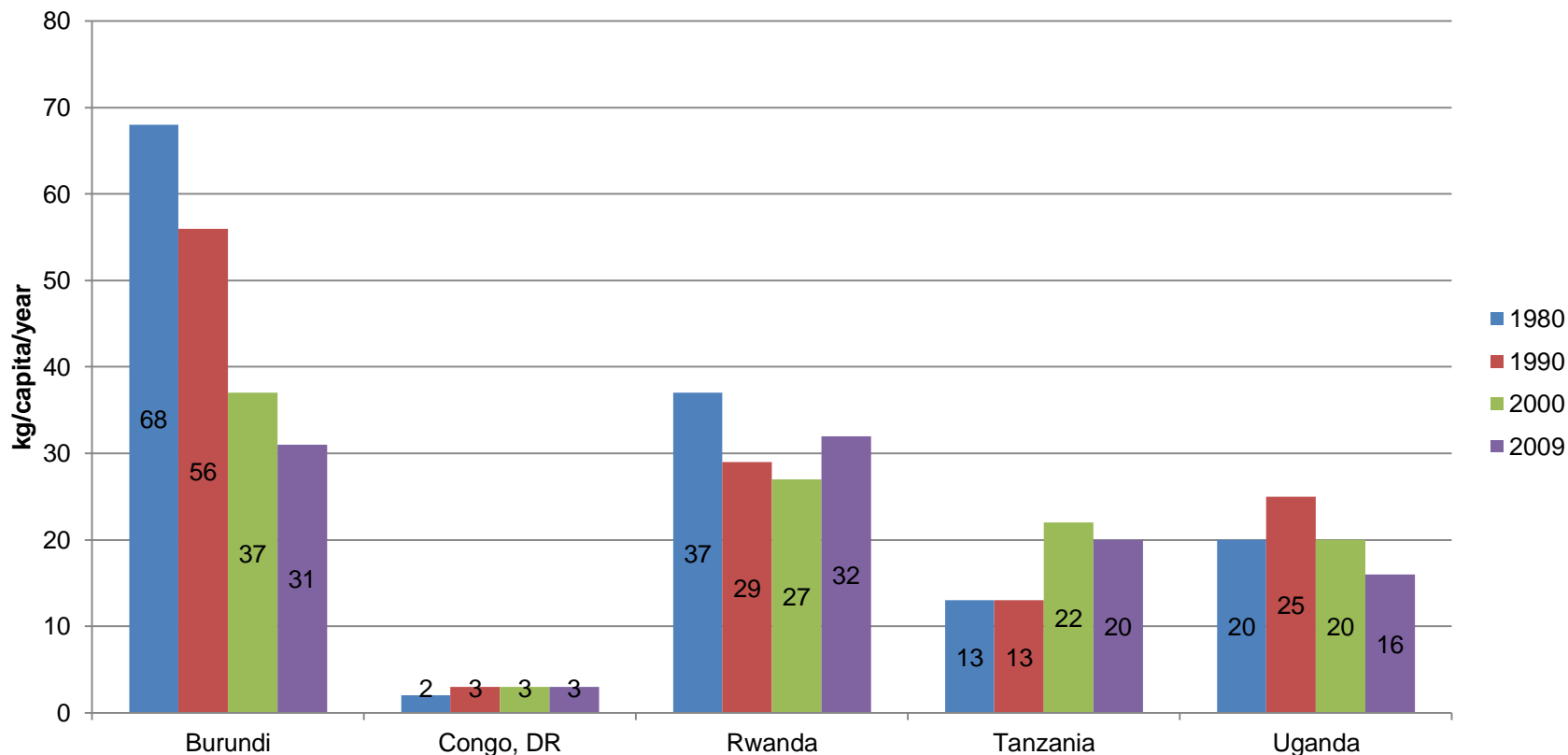


# Trends in Meat Availability (kg/capita/year)



# Trends in Pulse Availability (kg/capita/year)

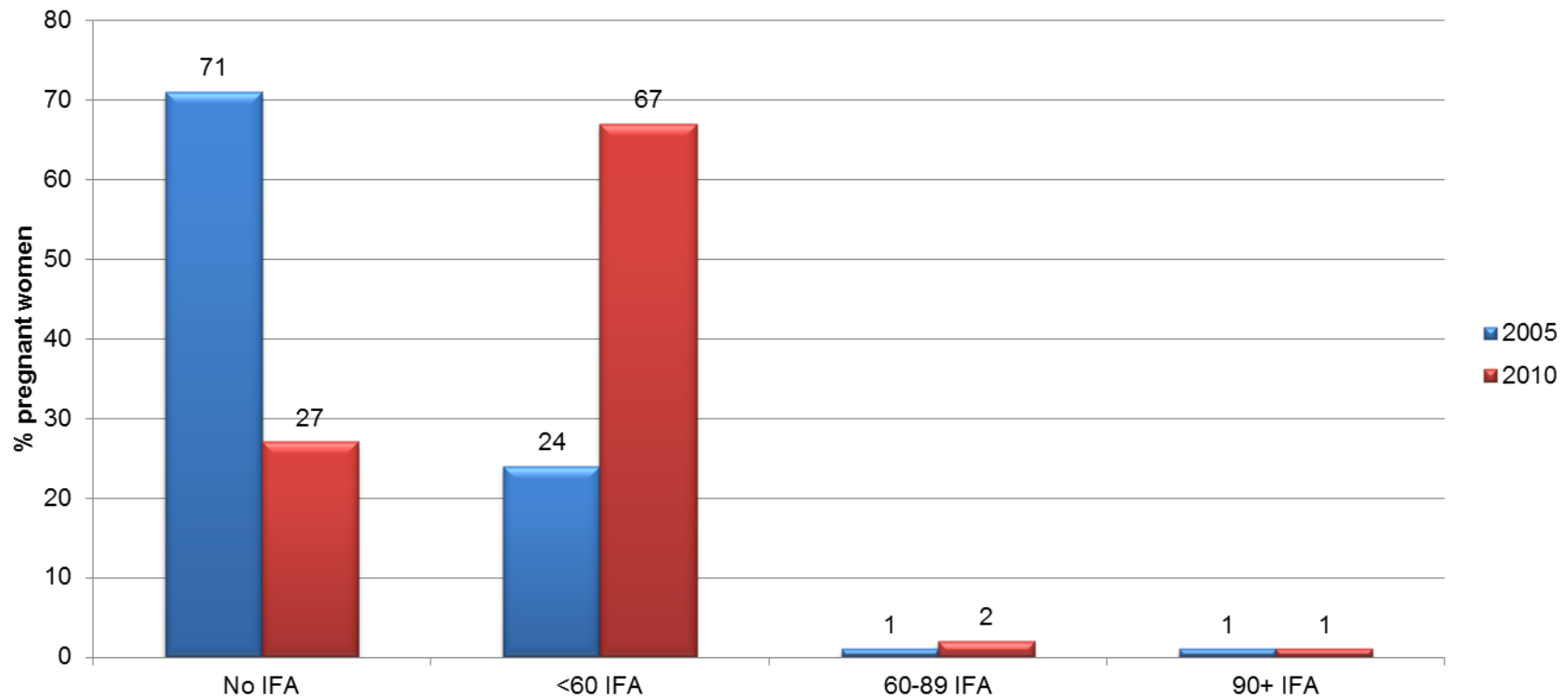
## Availability of Pulses 1980-2009 (kg/capita/year)



Source: FAO Food Balance Sheets

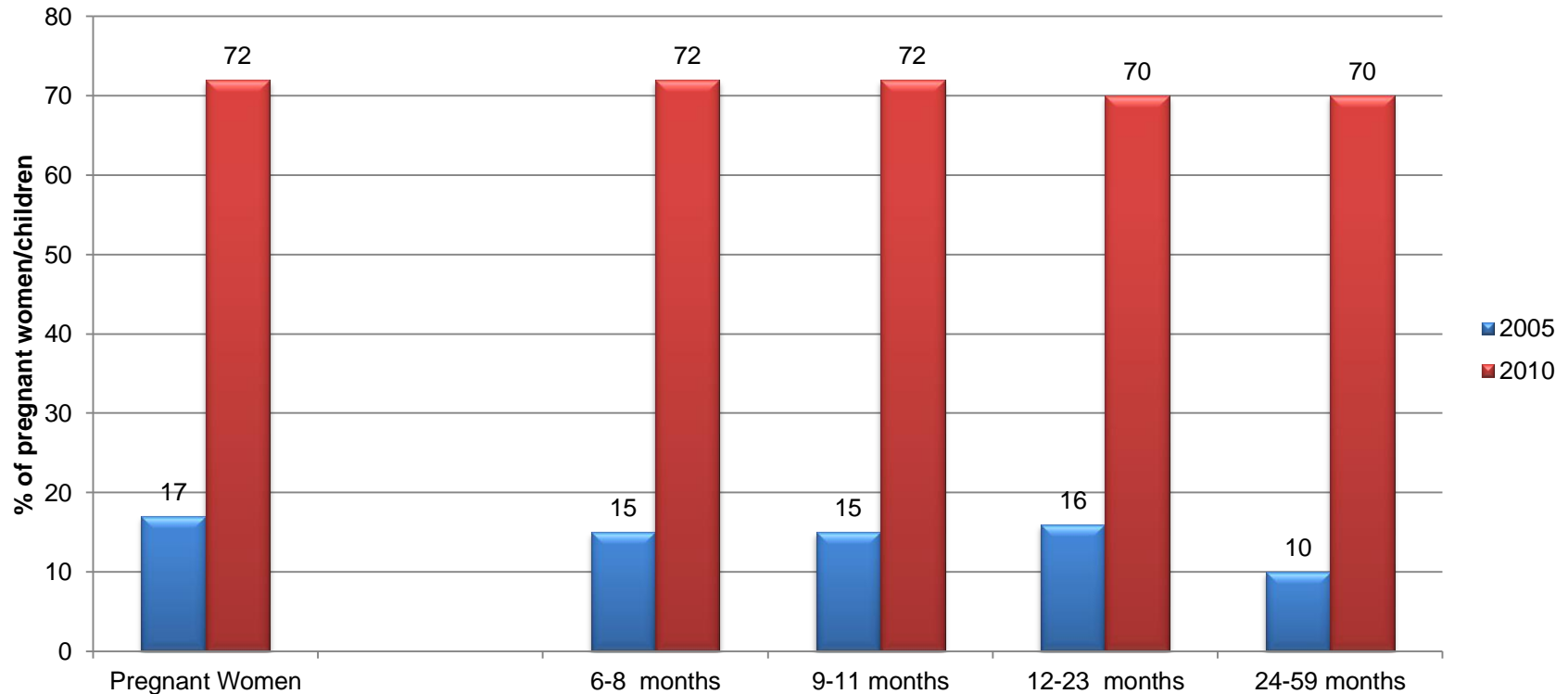
# Iron-Folic Acid Receipt or Consumption During Pregnancy

## Iron-Folic Acid Consumption by Pregnant Women in Rwanda 2005-2010



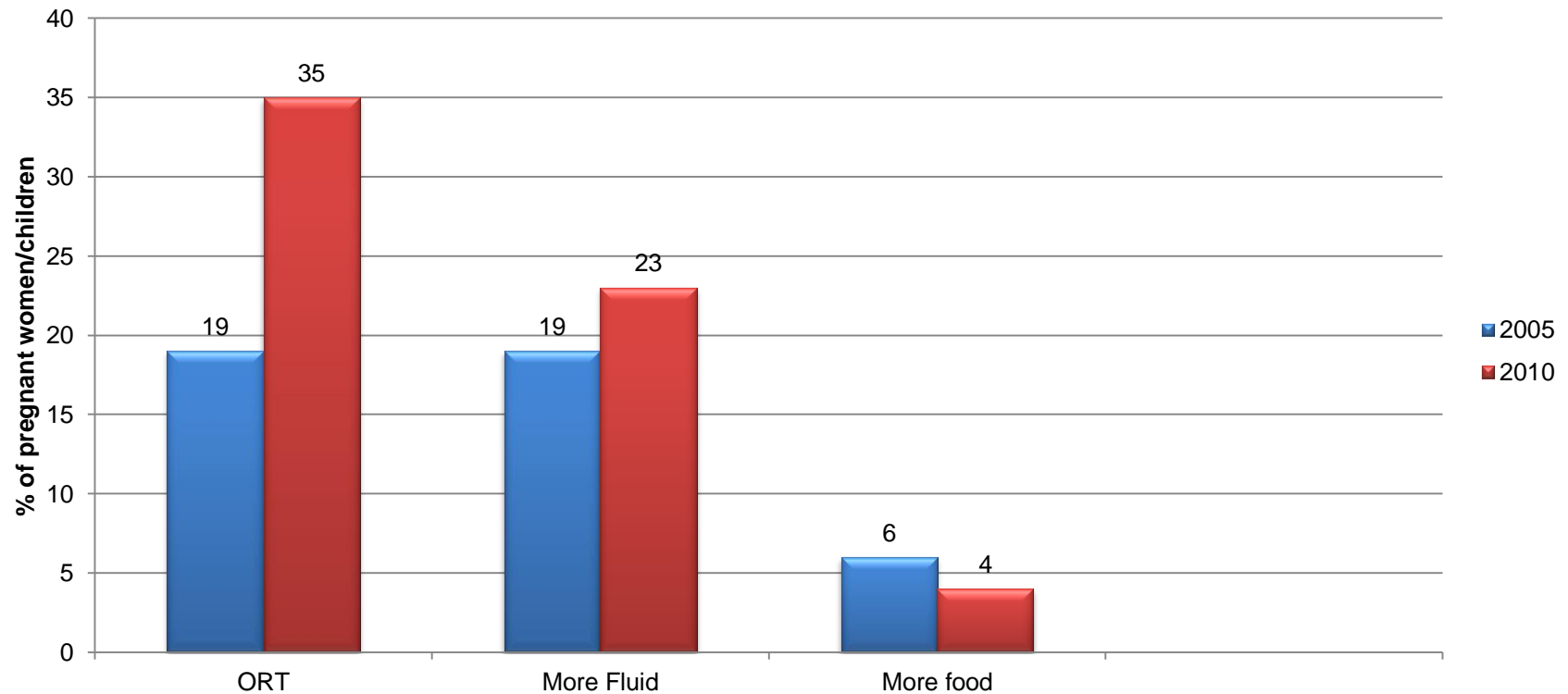
# Controlling Malaria-LLIN Use

## LLIN Coverage Pregnant Women & Children 6-59 months in Rwanda



# Controlling the Negative Outcomes of Diarrhea

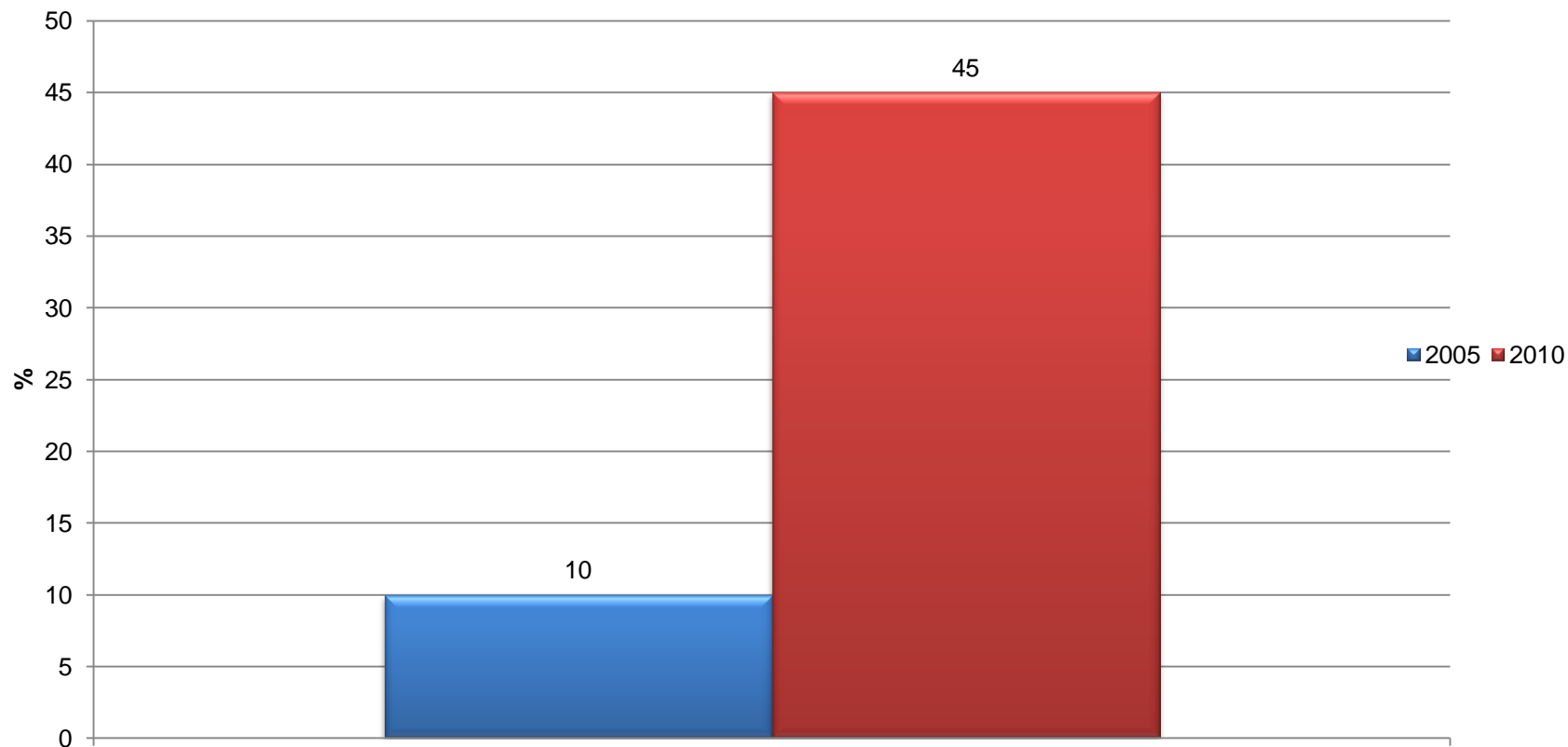
## ORT & Giving More Liquids or Food During Diarrhea 2005-2010





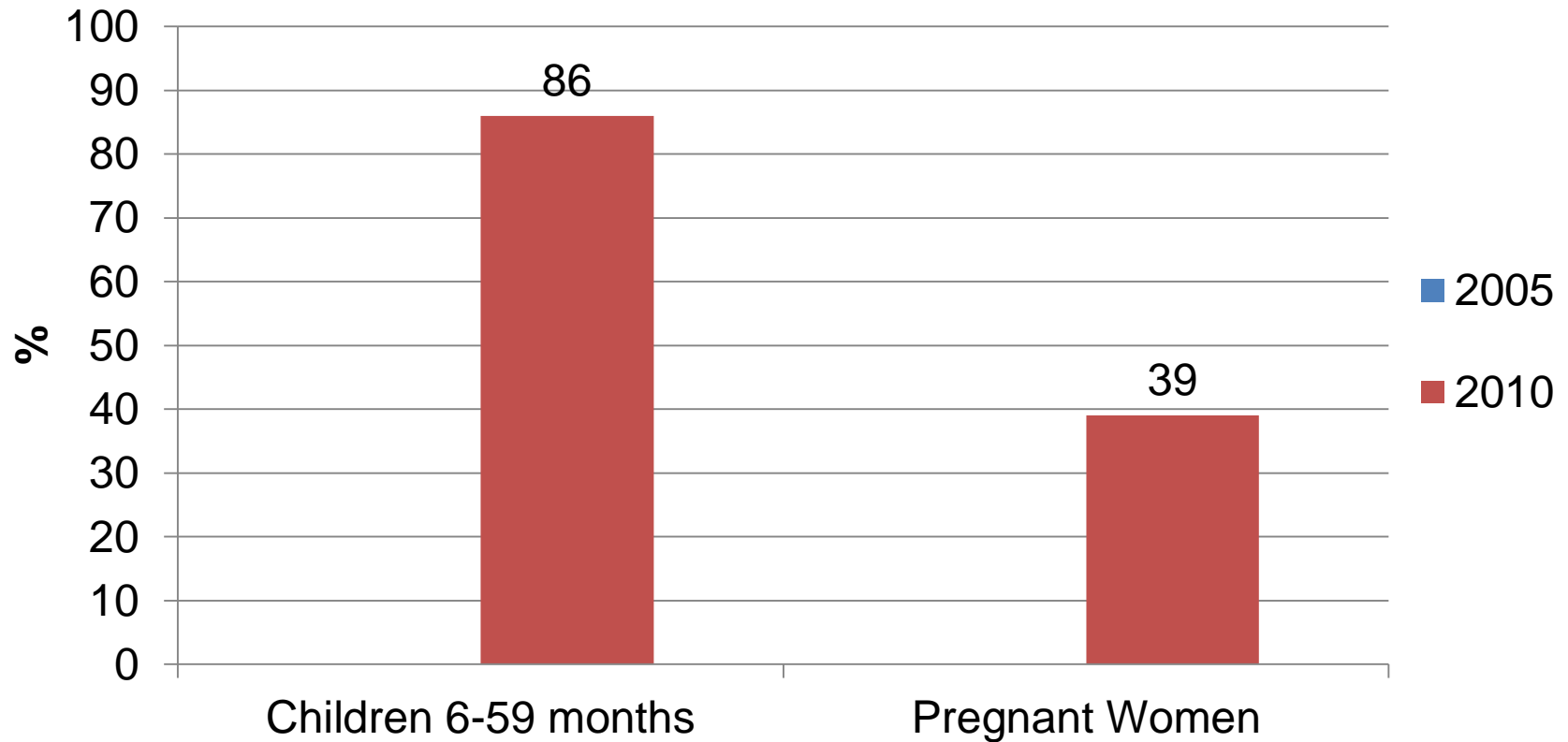
# Use of Modern Family Planning Methods

## Use of Any Modern Family Planning Method



# Controlling for Helminths

## Received Deworming Medication



# Major Contributors to Reducing Anemia

- LLIN use which has increased dramatically
- Deworming of children 1-5 years of age
- Some improvement in women taking some IFA
- Increase in women using modern family planning methods
- Increase in ORT use

# Other Activities

- Rwanda has just completed a study using Micronutrient Powders and is planning to scale-up the distribution of MN throughout the country with messages about improving CF in general.
- Counseling package on IYCF which has been developed and plans are to train 40,000 CHWs on its use

# What has MCHIP's Role Been?

- MCHIP held a national consultation on anemia which was represented by people working in nutrition, malaria, disease control, agriculture, education and the private food industry.
- MCHIP is completing a program review of current programs and a secondary analysis of the RDHS which will give more information on targeting anemia control programs

# Recommendations From the National Consultation

- Target interventions to the youngest of children including starting with in pregnancy through 2 years of age.
- Improve existing supplies and counseling for the recommended 180 IFA; consider CB distribution; increase use of delayed cord clamping (DCC).
- Scale-up micronutrient powders with improved complementary feeding. In 2010 only 17% of children were receiving an adequate diet.



# Recommendations From the National Consultation

- Increase the partnership between the Ministry of Health & Agriculture to increase the availability of iron-rich foods and develop recipes and increase channels of information.
- Other components of the integrated package should be scaled-up including ensuring that all pregnant women and young children sleep under LLINs and receive deworming medication.

# Recommendations From the National Consultation

- Include the recommendations from the consultation in the National Nutrition Strategy which is now being revised.
- This is now underway but follow-up is needed.



# Un-answered questions

- Why is anemia so low in pregnant women in Rwanda compared to other countries while anemia in children is similar to prevalence rates elsewhere?