



Early outcomes of preterm babies hospitalized in Kangaroo Mother Care units in Rwanda

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Background



Global Problem

- In 2010, 15 million babies were born prematurely
- 60% of preterm births occurred in sub-Saharan Africa
- 1.1 million deaths were due to preterm complications, 75% of which are preventable
- Preterm death is the 2nd leading cause for under five mortality, after pneumonia*

** Born Too Soon, The Global Action Report on Preterm Birth (2012)*



Background



Rwandan Statistics (2013)

- Of 297019 live births, 18583 (6%) were LBW
- Of LBW newborns, 6,309 were premature (34%)*
- 71% of newborns in neonatology were hypothermic**
- **2007:** KMC was introduced in the pilot site of Muhima District Hospital
- **2007-2010:** Scaling up of KMC units to 8 DHs

* HMIS 2013

** Neonatal death audit (2013)



Background

2010-2014: Interventions implemented by MoH and partners

- Training of healthcare providers on ENC, including KMC in referral, district hospitals and health centers
- Training of CHWs (ASM) on KMC as part of the C-MNH scale-up of neonatal services—includes a separate KMC unit for mothers with stabilized babies in all DHs
- Guidelines for hospitals provided by MoH and partners





Background



Interventions implemented by MOH and partners, cont.

- Integration of KMC training module in ENC for healthcare providers
- Integration of KMC protocols in national neonatal protocols
- In 2014: Challenges related to quality of care of preterm infants remain in some health facilities, specifically a lack of standardized follow-up after discharge until 40 weeks, corrected gestational age or 2.5kg



Objectives

- Describe the number of admissions, length of stay and outcomes (death, changes in weight) of preterm babies hospitalized in KMC units in districts hospitals
- Describe the number of patients with documented follow-up after discharge from the KMC units





Methods

- Review of neonatal and KMC registers in DHs
- Only RFHP supported districts: 14 selected districts with 19 DHs (44% of all DHs)
- 5,919 babies admitted in neonatology service; 1,378 admitted to a KMC unit from January to August 2014



RFHP MCH-Supported Districts

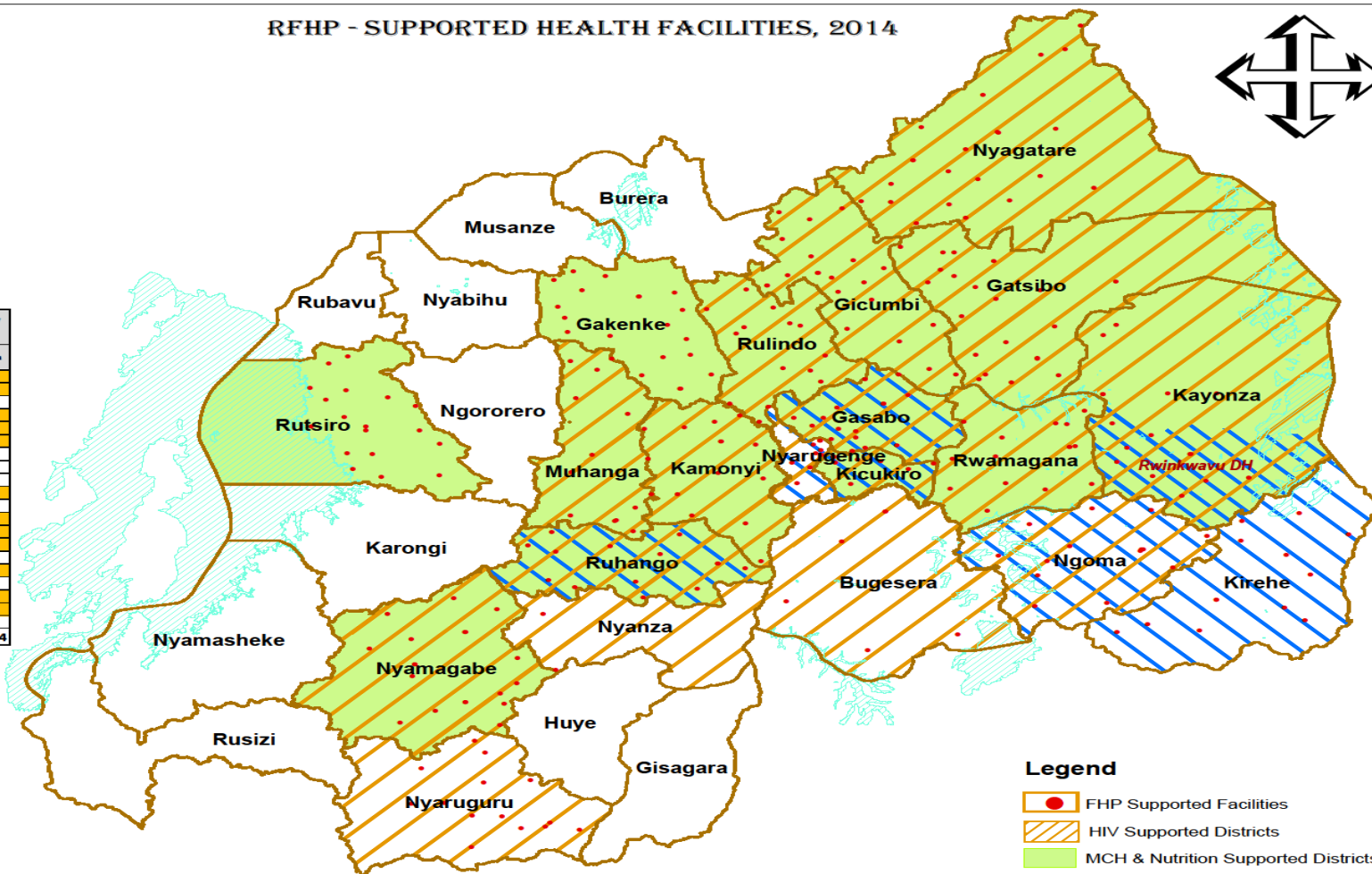


RFHP - SUPPORTED HEALTH FACILITIES, 2014



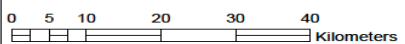
FHP - Facilities Supported per District & by Program Area

#	District	HIV/AIDS	MCH-Nutrition	Malaria
1	BUGESERA	7	0	0
2	GAKENKE	0	22	0
3	GASABO	6	17	17
4	GATSIBO	16	21	0
5	GICUMBI	17	25	0
6	KAMONYI	10	13	0
7	KAYONZA	5	16	9
8	KICUKIRO	4	10	10
9	KIREHE	0	0	16
10	MUHANGA	14	16	0
11	NGOMA	9	0	14
12	NYAGATARE	13	21	0
13	NYAMAGABE	13	21	0
14	NYANZA	2	0	0
15	NYARUGENGE	5	0	12
16	NYARUGURU	14	0	0
17	RUHANGO	12	16	16
18	RULINDO	10	19	0
19	RUTSIRO	0	18	0
20	RWAMAGANA	8	15	0
TOTAL		165	250	94



Legend

- FHP Supported Facilities
- HIV Supported Districts
- MCH & Nutrition Supported Districts
- Malaria Supported Districts
- District Boundary
- Lakes



Source: Rwanda Family Health Project, July 2014.



Results



January to August 2014

- Admissions in neonatology services: 5,919 babies
- Neonatal death: 743 (12.5%)
- Admissions in KMC unit: 1,378 (23.2%)
- Deaths after starting KMC: 44 (3.1%)
- Average length of stay in KMC unit: 13 days



Results, cont.

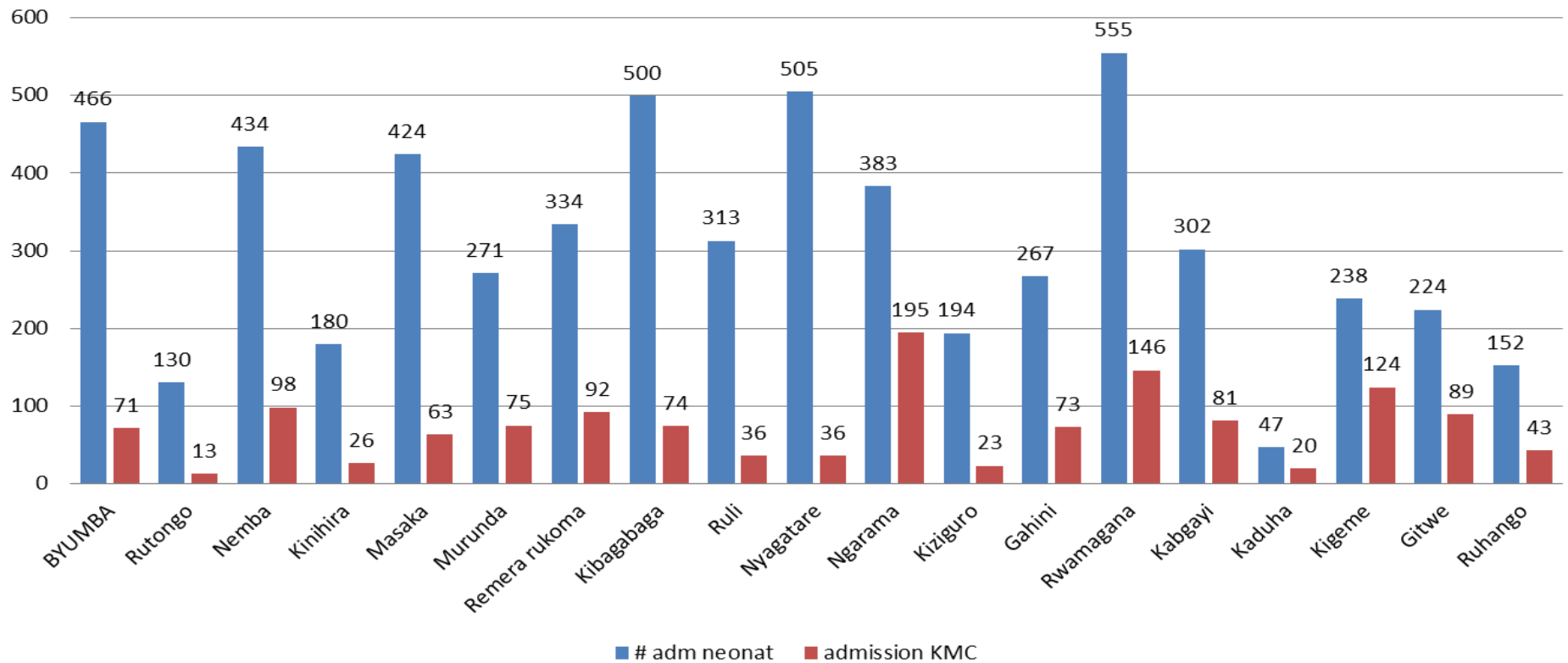


- Average weight gain: 117 grams
- Documented follow-up of babies discharged from KMC unit:
 - ✓ 8 out of 19 DHs documented the 1st follow-up (F/U) visit
 - ✓ 2 out of 8 DHs continued F/U until four standard visits
- Documented number of babies who received the **1st F/U visit: 274**
- Documented number of babies who received the **4th F/U visit: 24**



Results, cont.

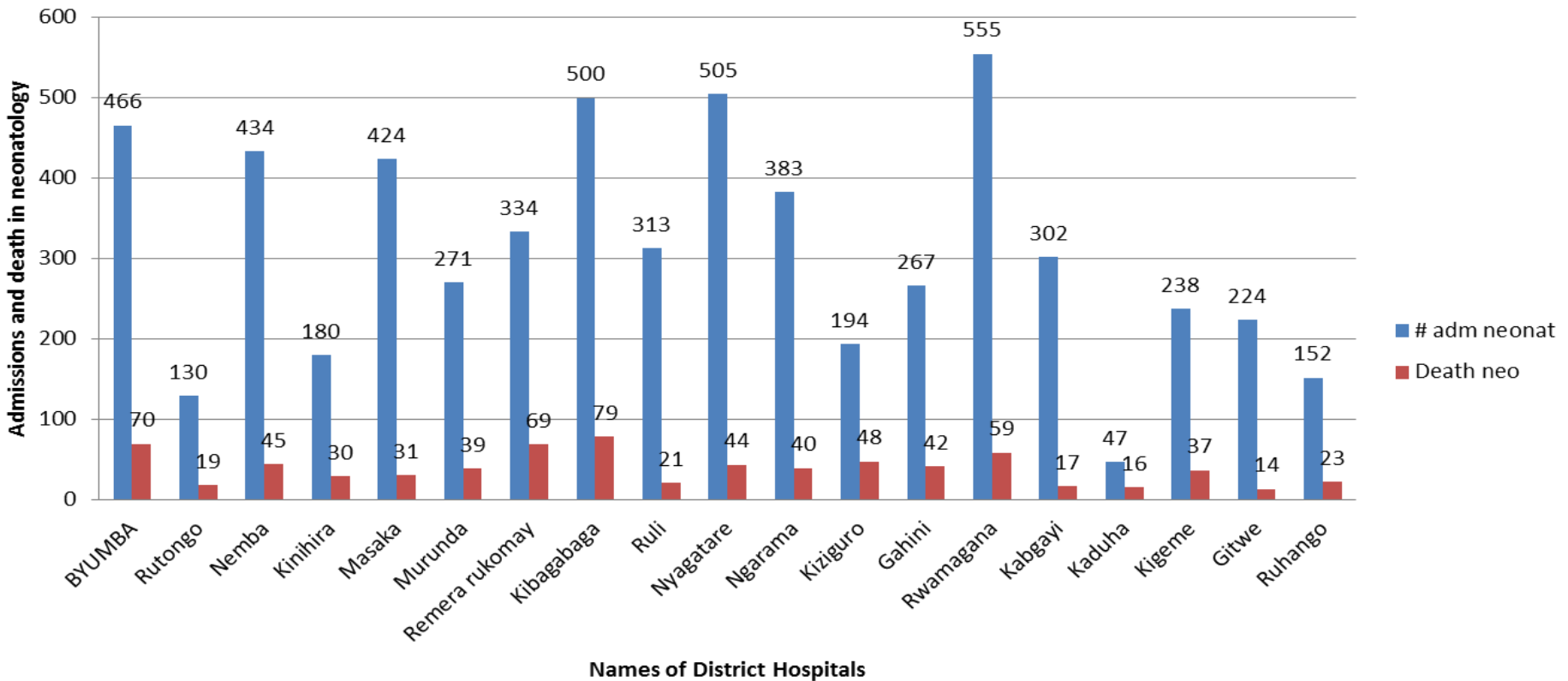
Admission in neonatology and KMC





Results, cont.

Admissions and death in neonatology

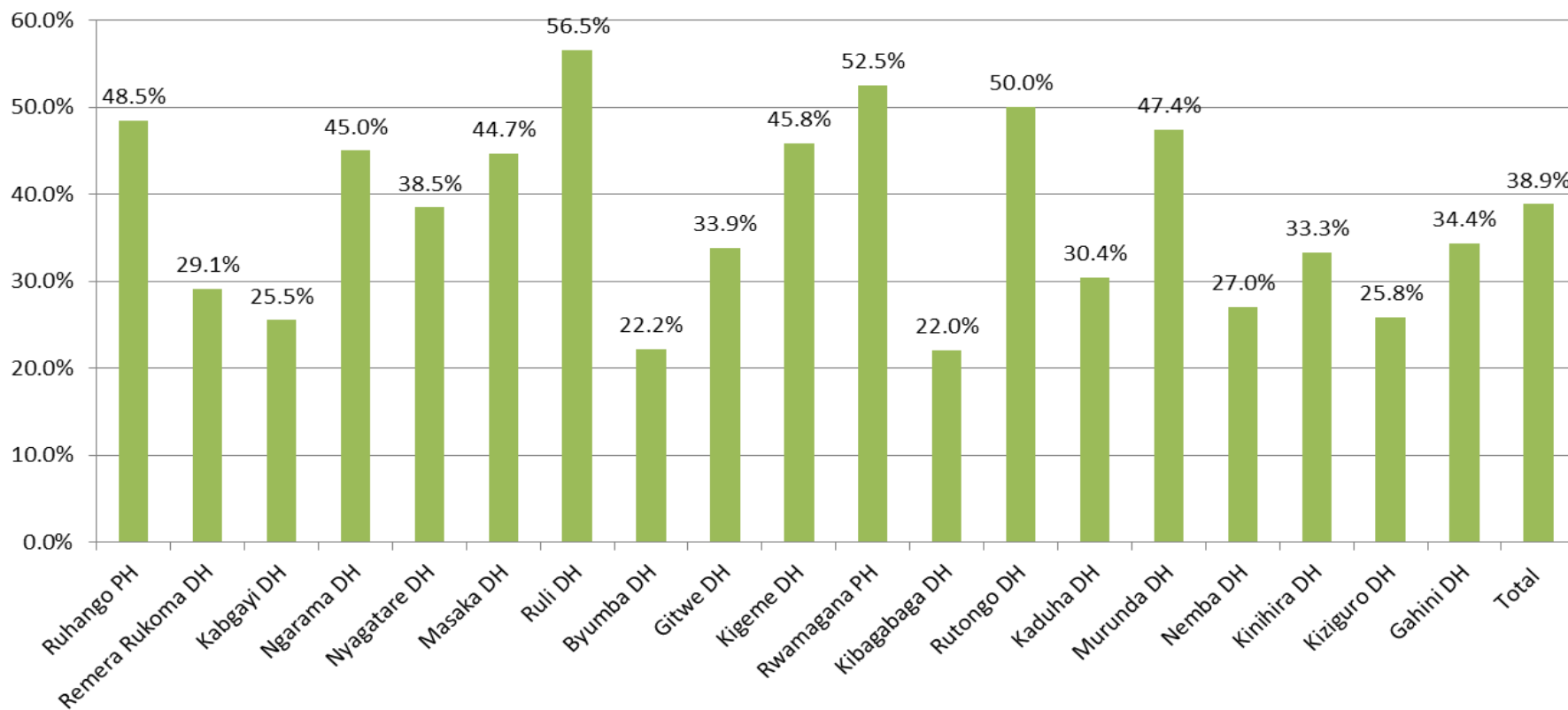




Results, cont.



Prematurity death among neonatal death

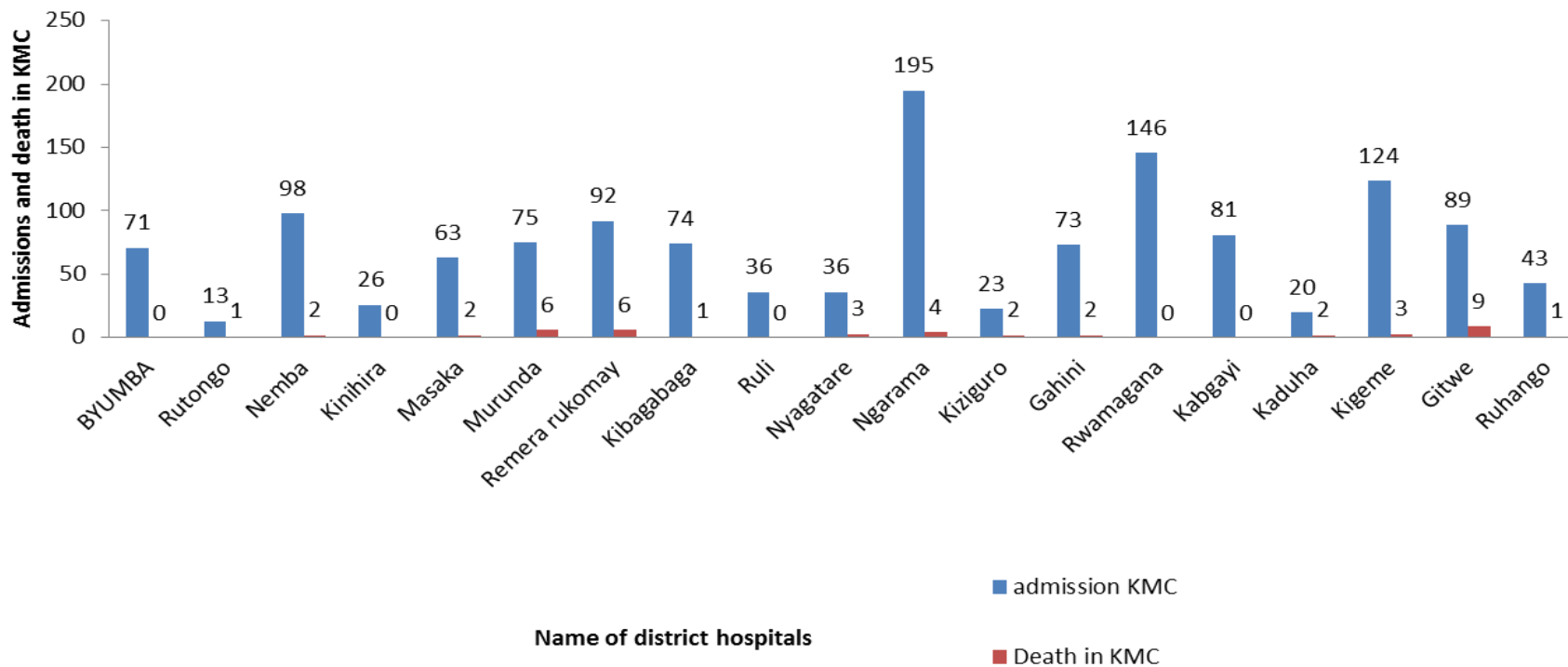




Results, cont.



Admissions and death in KMC





Conclusion



- Case fatality rate for newborns is still high in Rwandan district hospitals
- The average weight gain in KMC units is insufficient
- KMC is done in all RFHP-supported districts but there is a need to improve documentation of all activities done in KMC unit
- The follow-up for four standard visits was low



Recommendations



- Improve data with a separate register for KMC
- Continue regular mentorship to improve quality of preterm care in DHs
- Create a link between DHs, HCs and communities for babies discharged from neonatology units (e.g., rapid SMS offers an opportunity for feedback)
- Create ambulatory newborn clinics at HCs to improve their follow-up with clear guidelines, including referral



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