Government of Malawi

Using Quality Improvement Collaborative Approach to Improve newborn outcomes in Malawi

Dr Mercy Jere

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Background

- Malawi
  - Population: 17.2 million (2015)
  - Maternal mortality Rate: 439 per 100,000 live births
  - Neonatal Mortality Rate: 27 per 1000 live births
    - Prematurity 31%
    - Asphyxia 28%
    - Neonatal Sepsis 19%
  - 18% deliveries are preterm

Background of the preterm project

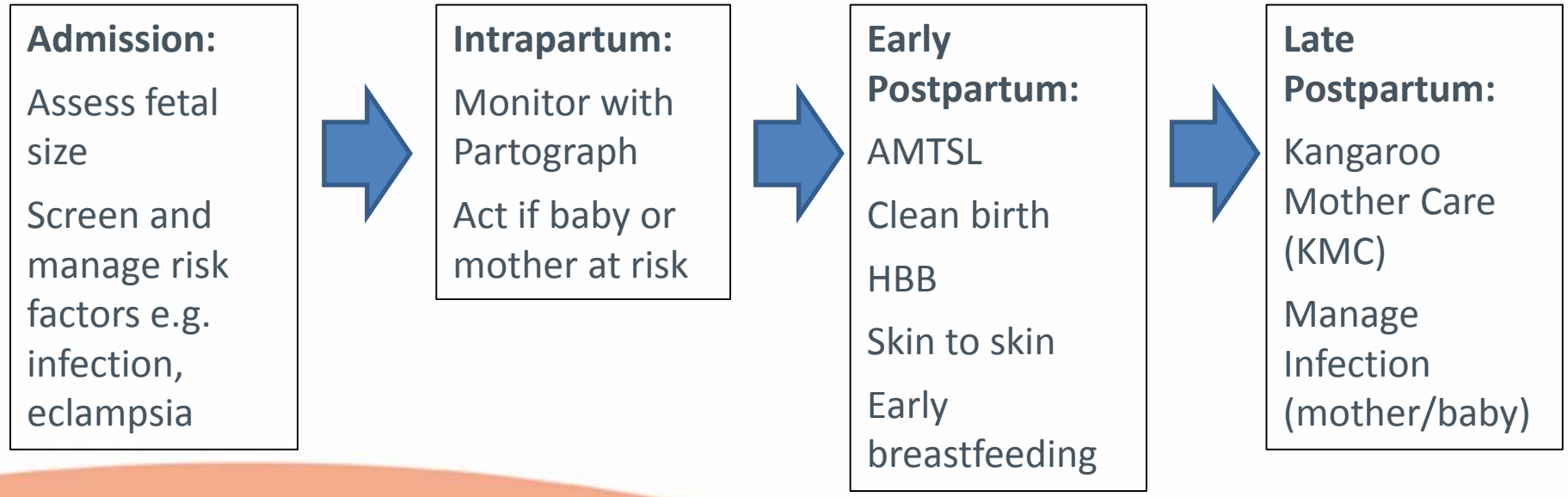
- Started as a scale-up plan on increasing uptake of Antenatal Corticosteroids in Malawi following successful results in 4 hospitals (increase from 6% to 80%)

- Following study findings from Althabe et al, the Global ACS TWG recommended that ACS should only be used where the following three conditions can be met:
  1. Ability to accurately assess gestational age (GA) and determine risk of imminent preterm birth.
  2. Adequate care available for preterm newborns (e.g. resuscitation, Kangaroo Mother Care, adequate feeding support, treatment of infection, etc.)
  3. Reliable, timely and appropriate identification and treatment of maternal infection

Theory of Change

- Primary Aim: decrease mortality in low birth weight babies (1000 – 2000g) by 30% in 2 years across 12 District hospitals through reliable application of evidence based facility interventions

- Secondary Aims: Decrease all Newborn Mortality, Maternal Mortality, Stillbirths



Drivers of Success

Reducing deaths of Low Birth Weight Babies in 12 Hospitals in Malawi

Activated leadership who can champion an improvement system for neonatal survival
- 15 Leaders & 24 District mentors trained in QI
- Leaders making decisions based on gaps identified (Staffing, medical equipment, generators etc.)

Immediate access to essential commodities needed for preterm neonatal survival
- Hospitals established nursery and KMC units separate from the general postnatal ward
- Essential equipment provided

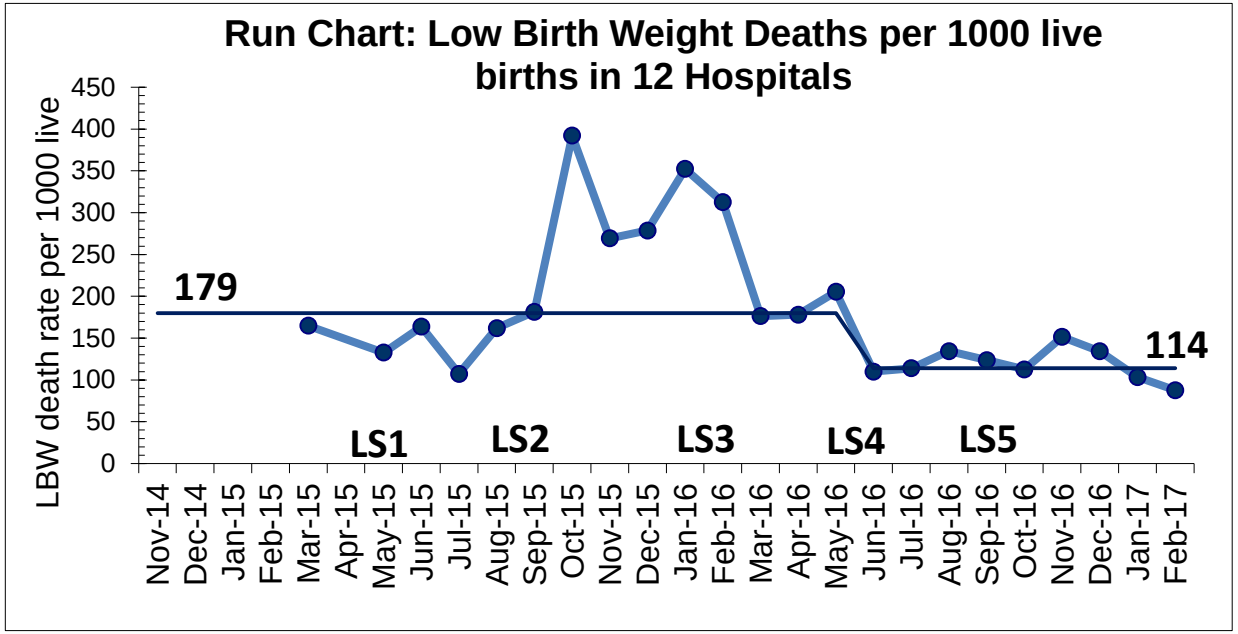
Knowledgeable health workers who can expertly deliver preterm new-born care
- Clinical training on labour and management of the new-born
- In-situ trainings (parto-graph scoring, resuscitation, KMC)
- Introduction to Quality Improvement and Collaborative Learning Sessions

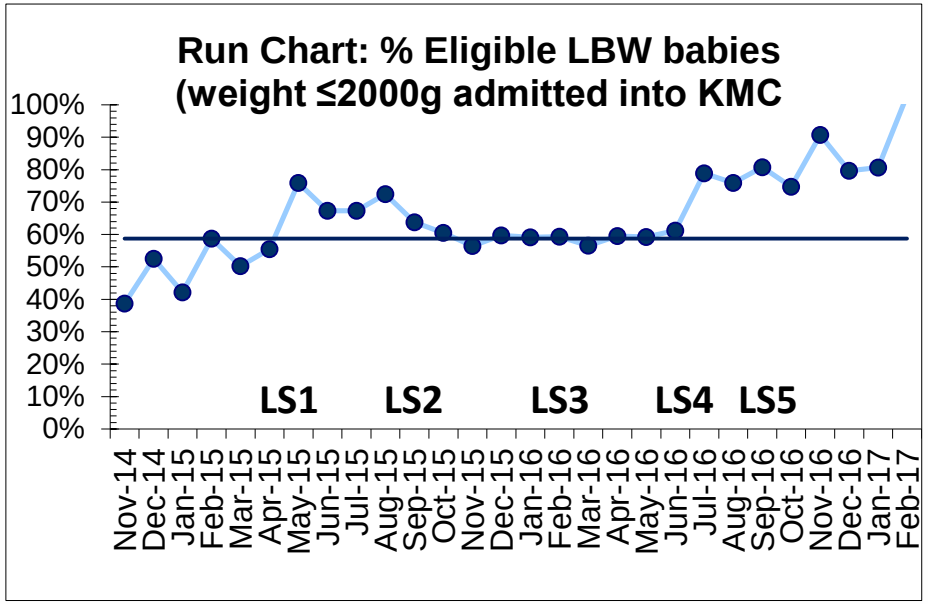
A bundle of key interventions that are reliably applied to every mother in labour and every preterm new-born infant
- Antenatal, Intrapartum and Postpartum

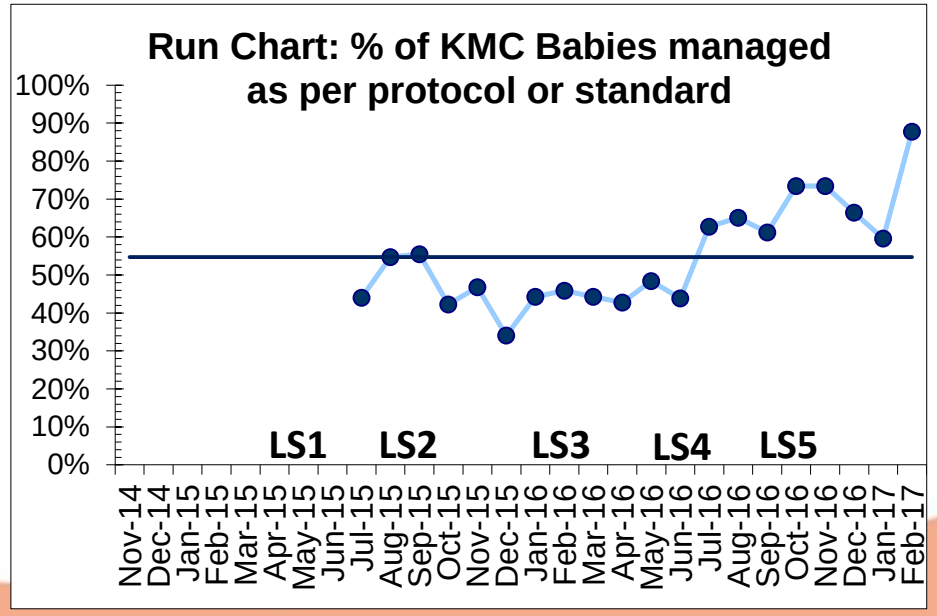
Reliable Data systems
- Real time chart reviews and scoring processes of care against standards
- Hospitals using their data

Patient & Family Centred Care from antenatal care through neonate's discharge

Reduced deaths of Low Birth Weight Babies by 25% in 12 hospitals



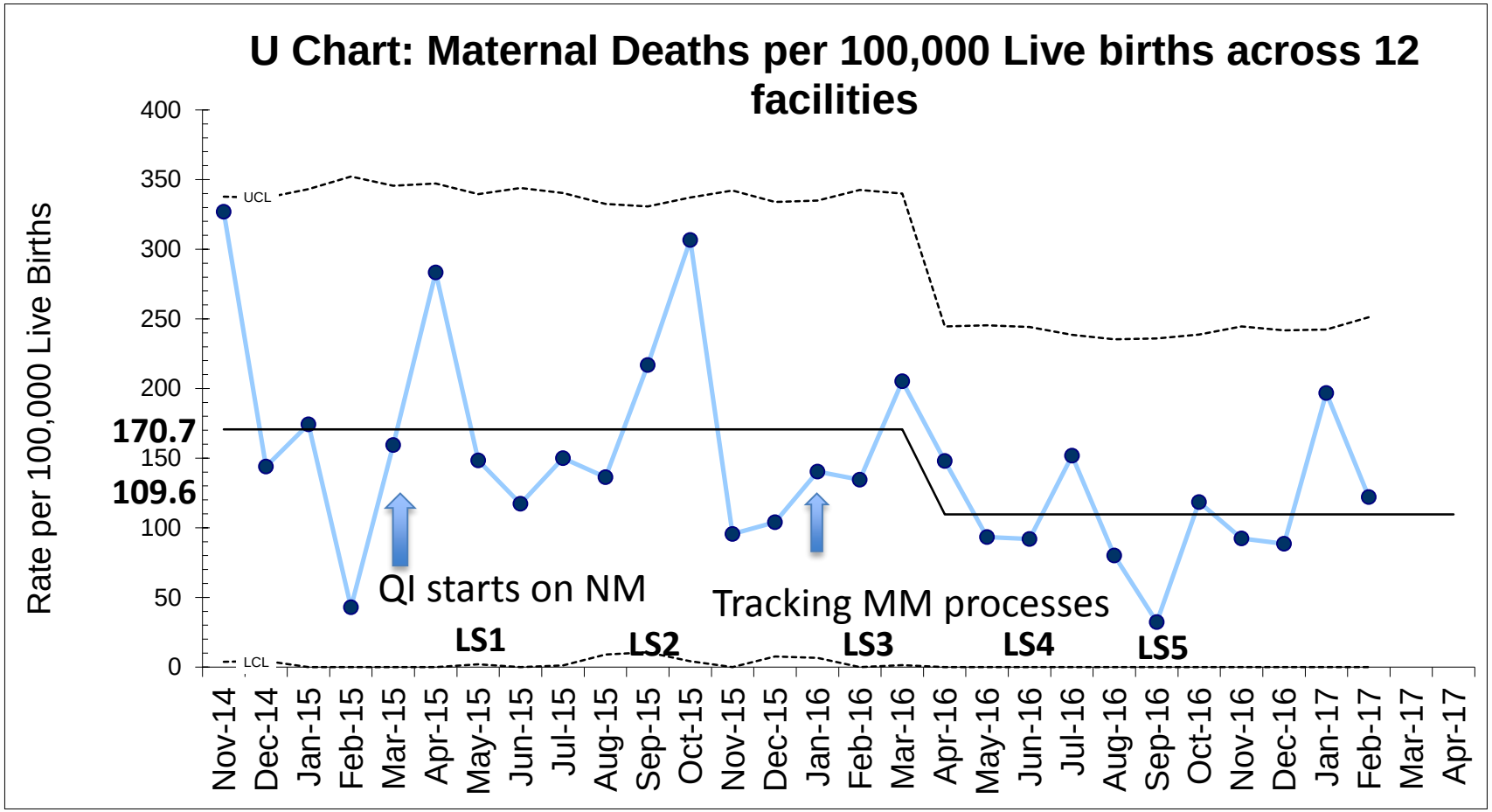




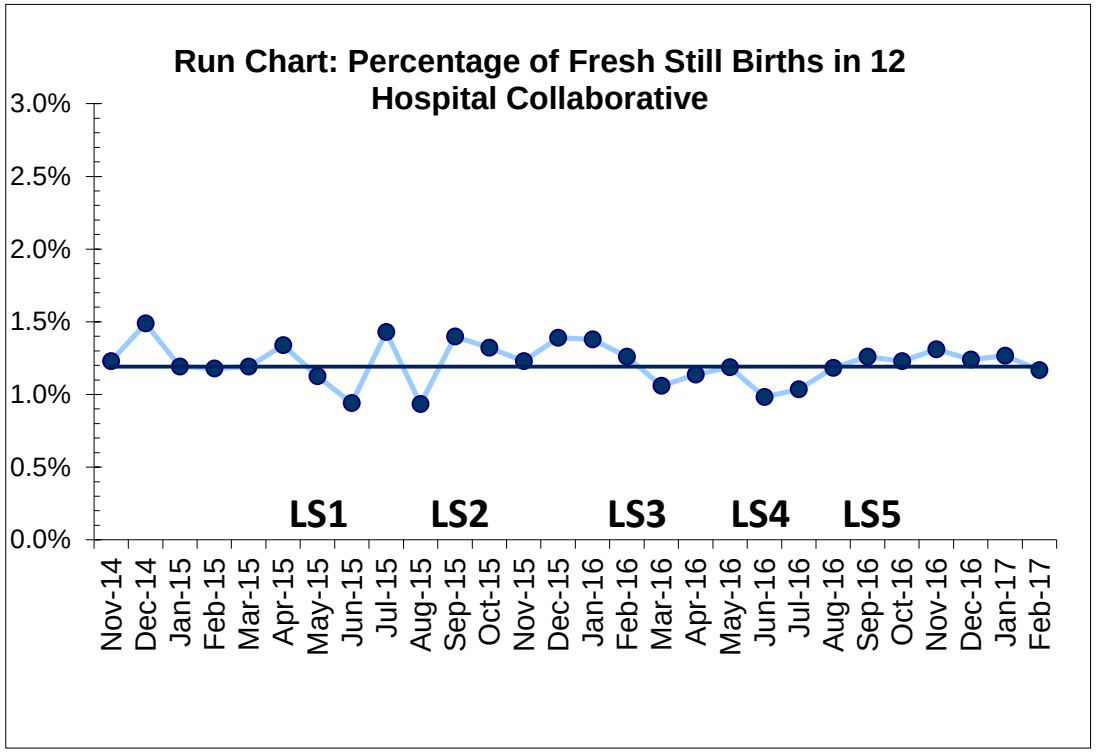
Learning Session 4 Key Interventions

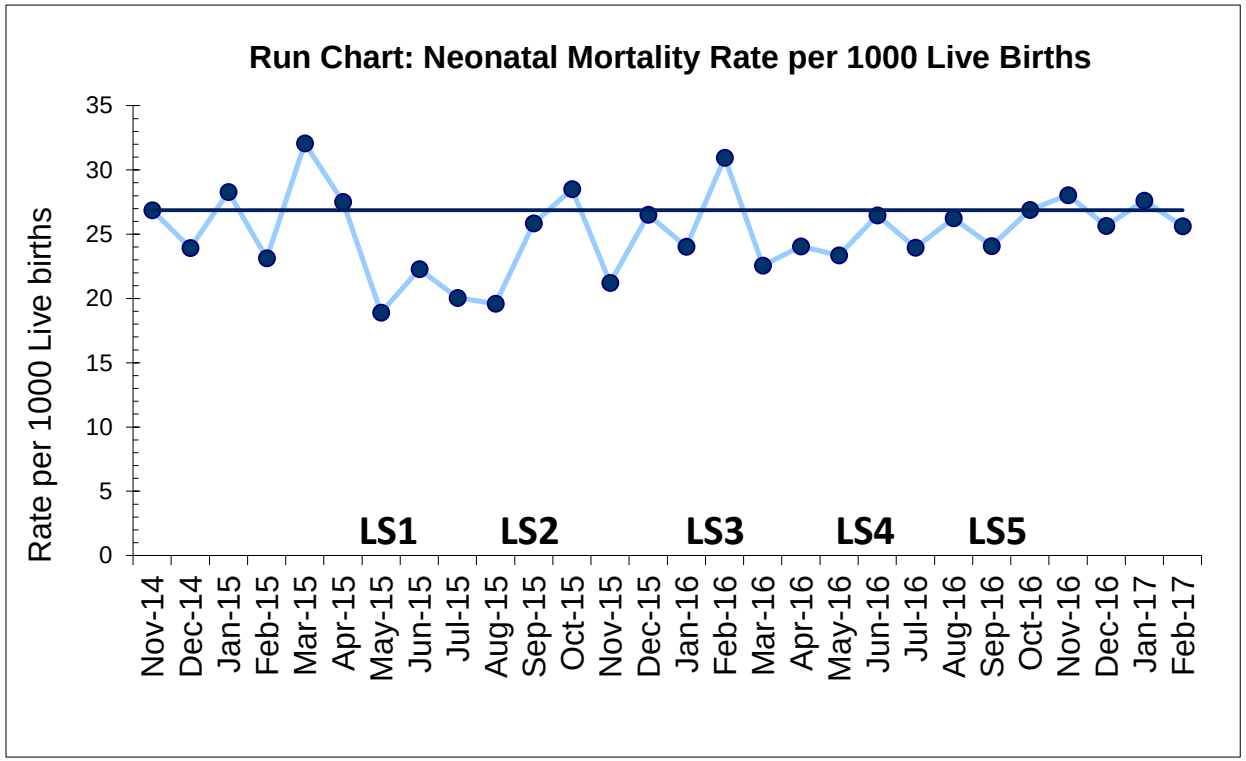
- Immediate Skin to skin for all babies
- National neonatal monitoring tools provided to all hospitals
- Scoring of KMC processes of care

37% Reduction in Maternal Mortality in 12 Hospitals



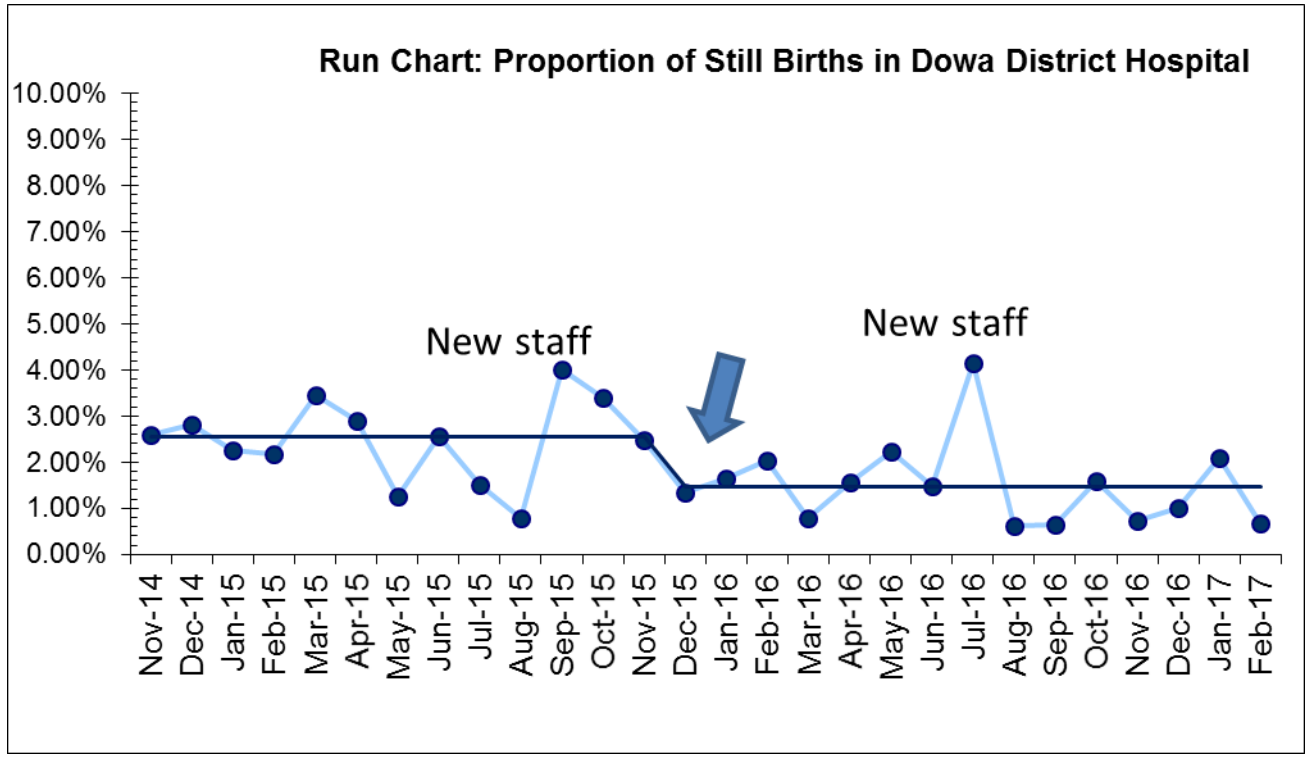
No change in Stillbirths and Neonatal Mortality





1 hospital reduced Stillbirths by 42% by:

- improving on monitoring of pregnant women in latent phase of labor
- Improving monitoring of active phase of labor using the partograph (≥90% correct use)
- Fortnightly chart reviews and scoring of partographs



This theory has to be tested further

Limitations

- Most District Hospitals have very small KMC rooms and Nursery units
- District Referral systems
- Many babies dying due to complications of birth asphyxia in the collaborative – Complex processes

10 mothers and guardians in a ≈9m^2 KMC Room

District Collaborative

- A small scale demonstration of implementation of this QI model across a District, including birthing facilities located in primary care sites

- Focus on Maternal Newborn Health

District Prototype

Activated leadership who can champion an improvement system for maternal and neonatal survival

- 6 Leaders and 24 District mentors trained in QI
- District leaders in-charge of District QI activities

Patient & Family Cantered Care from antenatal care through neonate's discharge

A bundle of key interventions that are reliably applied to every mother in labour and new-born infant

- Antenatal
- Intrapartum
- Postpartum

Improving outcomes of mothers and newborns at District level

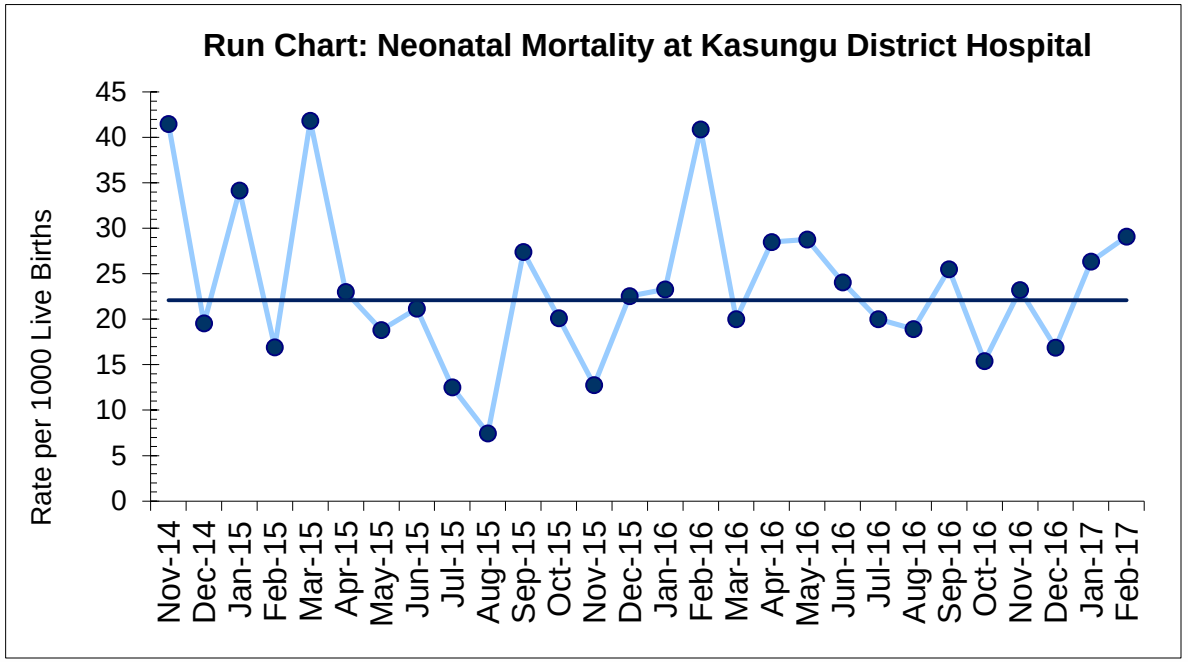
Knowledgeable health workers who can expertly deliver preterm new-born care

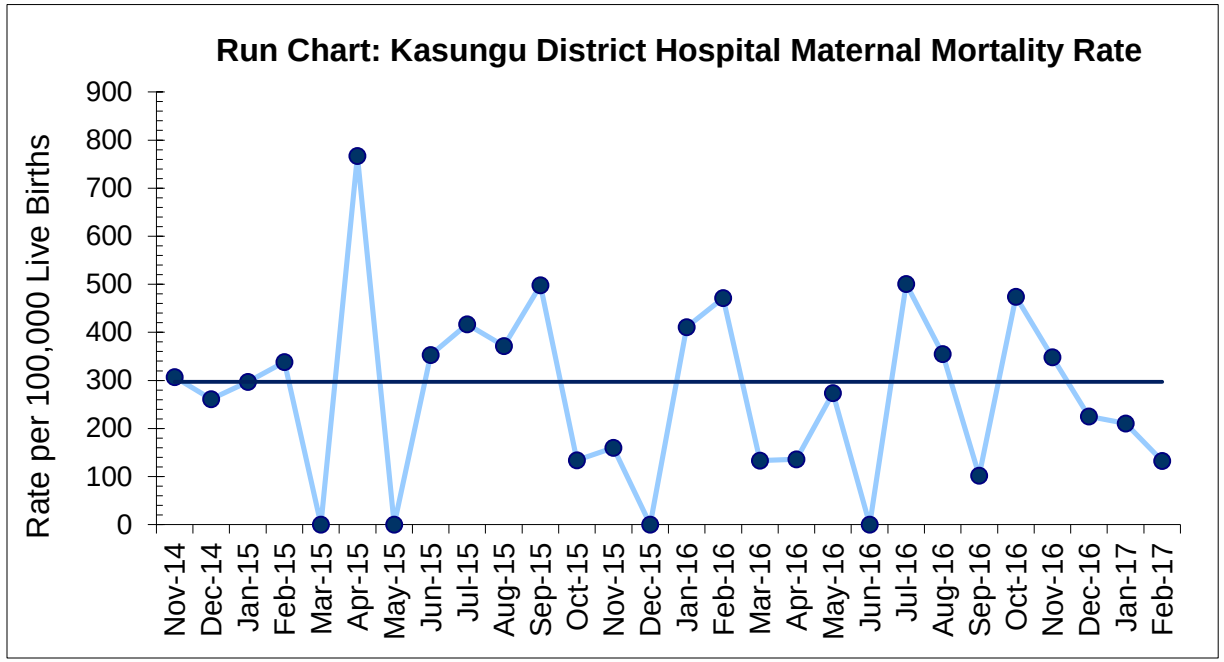
- Introduction to Quality Improvement
- Clinical mentorship at primary care site
- In-situ trainings (parto-graph scoring, resuscitation, KMC)
- Clinical Mentorship of primary care midwives at the District Hospital

Immediate access to essential commodities needed for maternal and neonatal survival

- Provide essential equipment and drugs

Too early to see improvement in the outcome measures





…But there have been improvements in KMC process indicators