Providing low cost, effective neonatal care: Making EVERY newborn count

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Objectives

- Overview of global neonatal health
- A case study: Video of implementing low cost, effective neonatal care in eastern Uganda
- The impact it can have

The vision

"A world in which there are no preventable deaths of newborns or stillbirths, where every pregnancy is wanted, every birth celebrated, and women, babies and children survive, thrive and reach their full potential"

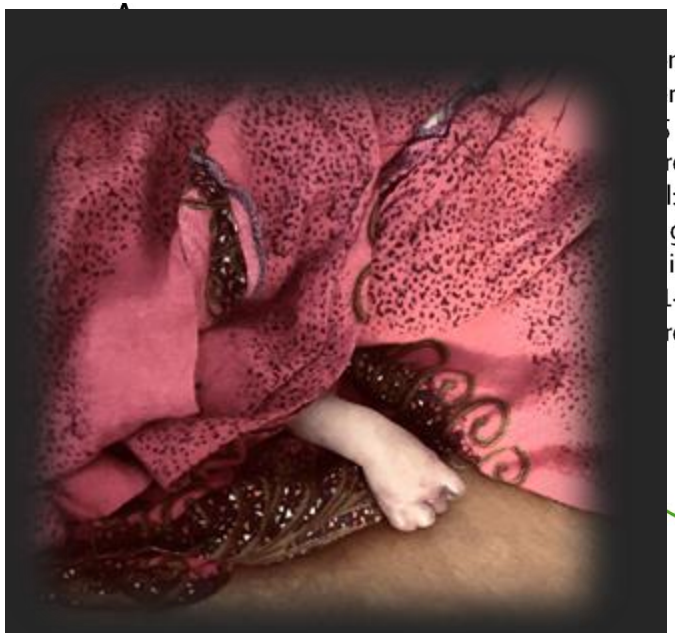
Every Newborn Action Plan



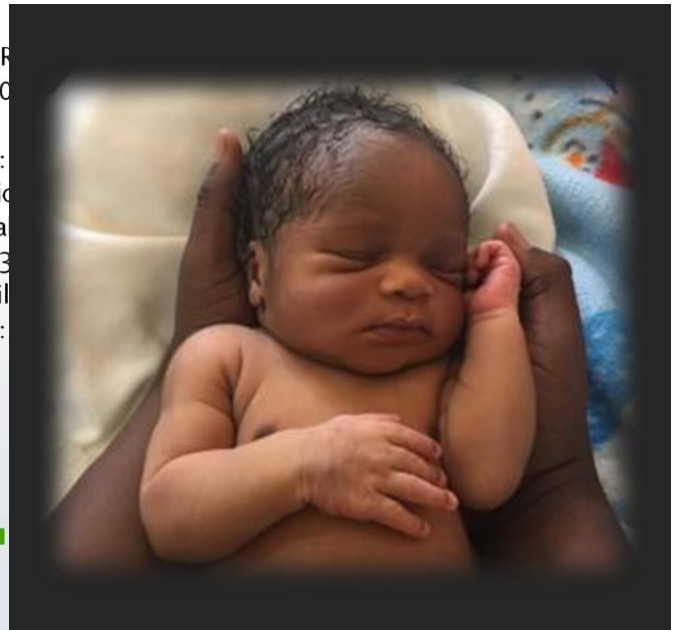



INFANT WARMER
MTTS

Progress



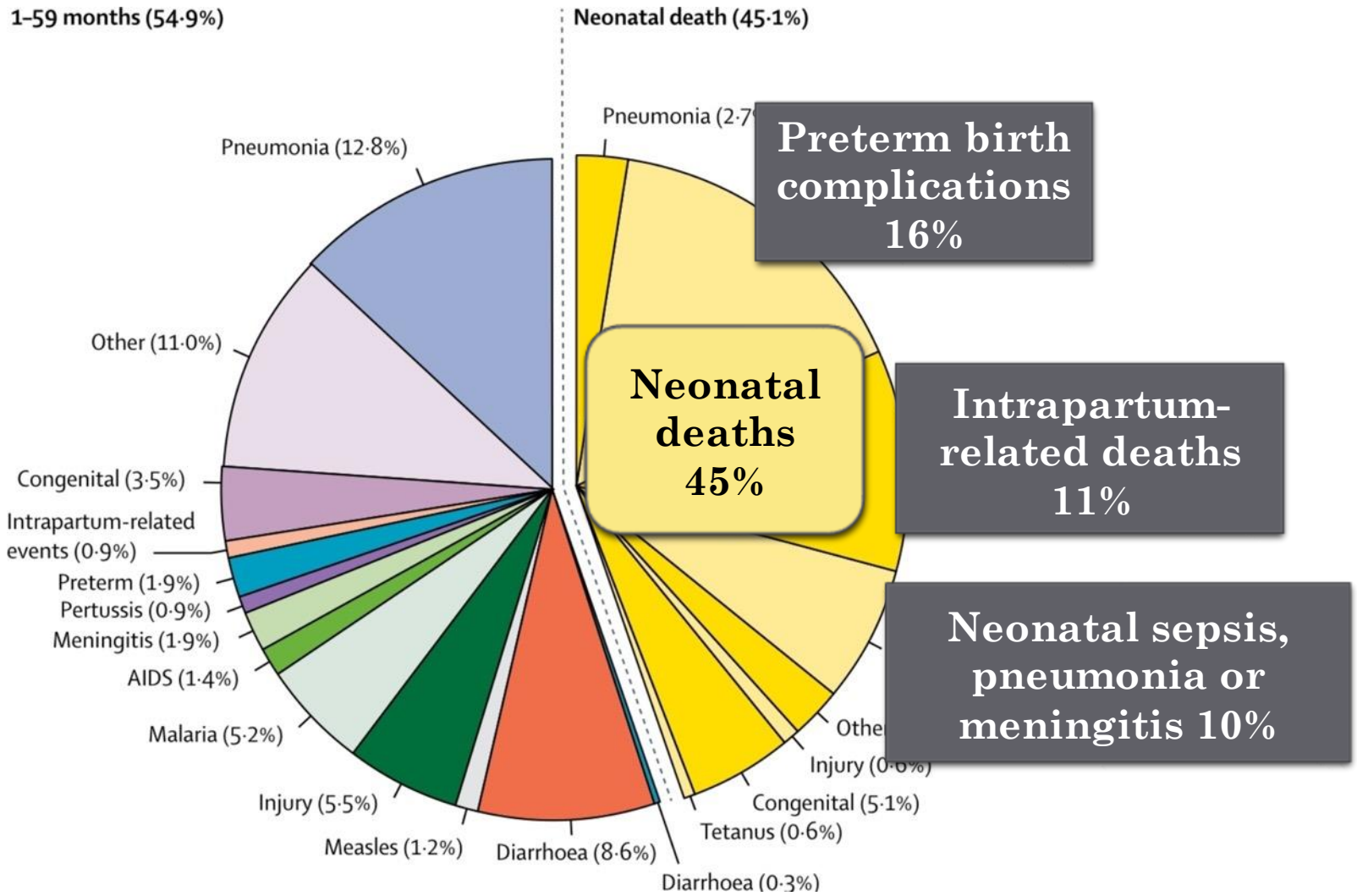
2.6 million stillborn



2.7 million newborn deaths

Source: Lancet Every Newborn series, paper 2

Why are our babies dying?



Adapted from Liu , Lancet 2016

Where are our babies dying?

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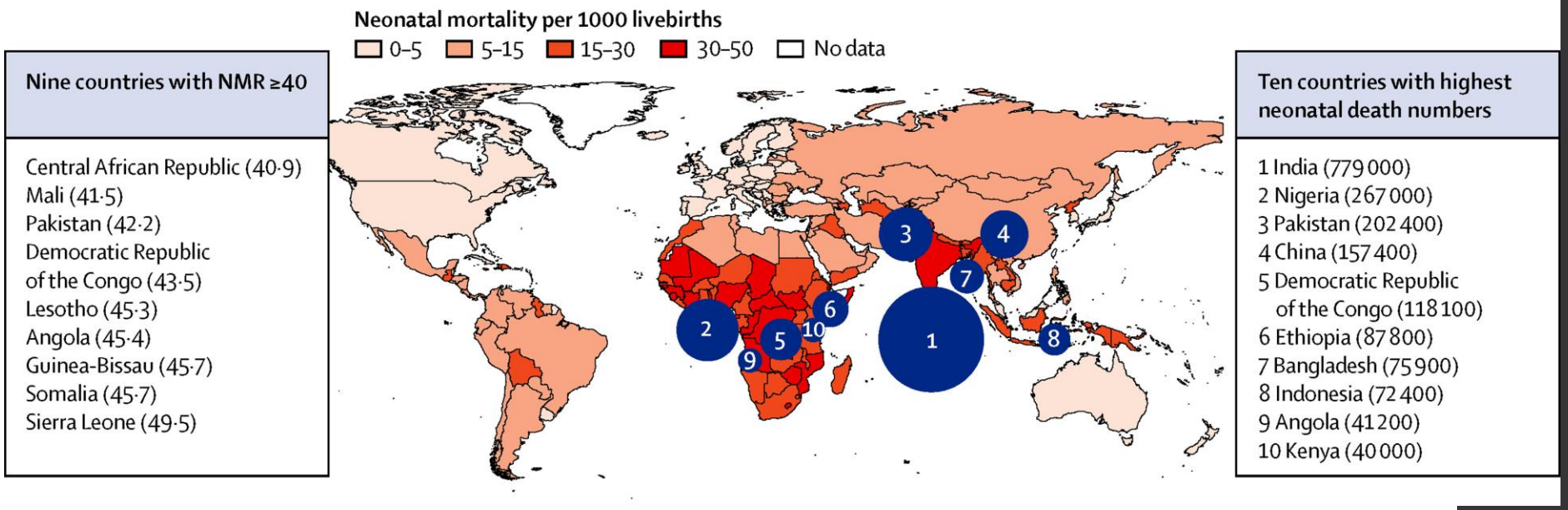
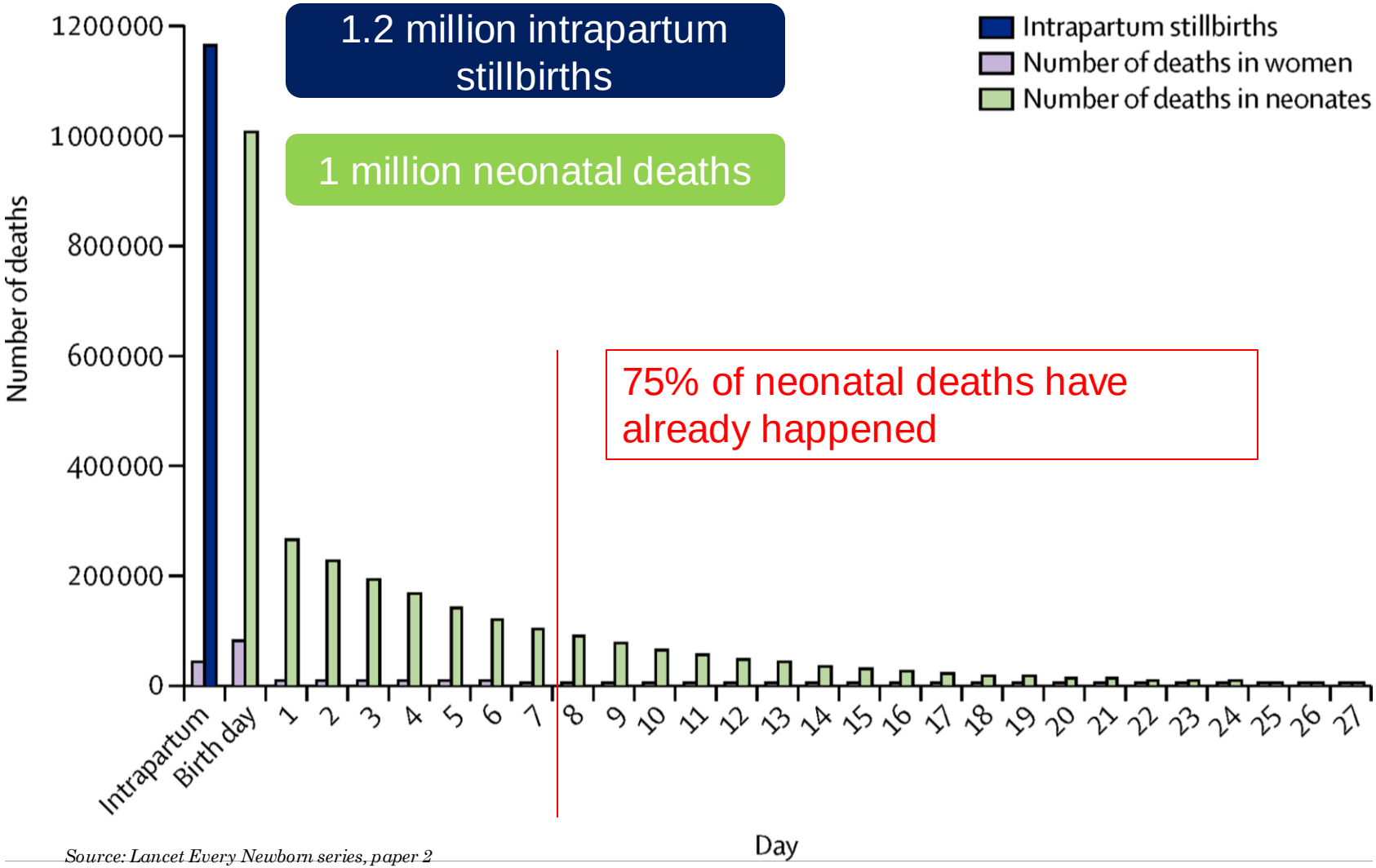


Source: Lancet Every Newborn series –Lawn et al

When do our babies die?



Source: Lancet Every Newborn series, paper 2

Sustainable development goals

- By 2030, all countries will reach the target of 12 or less newborn deaths per 1 000 live births

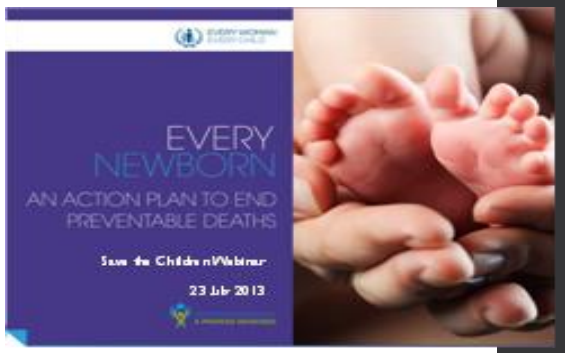
Stillbirths are missing

EVERY NEWBORN | An Action Plan to End Preventable Deaths

Goal 1: Ending preventable newborn deaths
By 2035, all countries will reach the target of 10 or less newborn deaths per 1000 live births

Goal 2: Ending preventable stillbirths
By 2035, all countries will reach the target of 10 or less stillbirths per 1000 total births

The strategy



1. Strengthen and invest in **care during labour, child birth and the first day and week of life**
2. **Improve the quality** of maternal and newborn care
3. **Universal coverage.** Reach every woman and every newborn to reduce inequities
4. Harness the **power of parents, families, and communities**
5. **Count every newborn** – measurement, programme tracking and accountability

A case study

Improving neonatal care in eastern Uganda

VIDEO

The two-tier neonatal care package focused on 12 key areas

1. Establishment of routine data collection on neonatal admissions through dedicated logbooks and admission numbers
2. Regular monthly audit of neonatal admissions, outcomes and mortalities
3. Maternal education, involvement and empowerment
4. Staff training in neonatology
5. Guidelines and training in the administration of neonatal medications
6. Guidelines and training in the administration of neonatal intravenous fluids
7. Protocols to aid neonatal case management
8. Neonatal follow-up clinic
9. Improved infection control policies on the neonatal unit
10. Investment in appropriate technology for neonatal care
11. Dedicated neonatal unit
12. Dedicated neonatal staff including a paediatrician and neonatal nurses

The impact of change

	No Intervention	Level I Care	Level II Care	Chi-square P-value			
	Mortality/N(%)	Mortality/N (%)	Mortality/N (%)	$I_0 \times I_1$	$I_0 \times I_2$	$I_1 \times I_2$	$I_0 \times I_{1x} I_2$
Overall Admission	116/240 (48.3%)	262/650 (40.3%)	410/2000 (20.5%)	0.032	0.000	0.000	0.000
Preterm	24/37 (64.9%)	51/119 (42.9%)	130/467 (27.8%)	0.019	0.000	0.000	0.000
Neonatal Sepsis	56/136 (41.2%)	125/370 (33.8%)	76/904 (8.4%)	0.124	0.000	0.000	0.000
HIE	12/27 (44.4%)	49/73 (67.1%)	126/351 (35.9%)	0.039	0.368	0.000	0.000

Analysis

BMJ Global Health

Staged implementation of a two-tiered hospital-based neonatal care package in a resource-limited setting in Eastern Uganda

Kathy Burgoine,[1] Juliet Ikiror,[1] Sylivia Akol,[1] Margaret Kakai,[1] Sara Talyewoya,[1] Alex Sande,[2] Tom Otim,[3] Francis Okello,[4,5] Adam Hewitt-Smith,[4] Peter Olupot-Olupot[4,6]

Going further

Respiratory support

Continuous positive airways pressure (CPAP)

OPEN

Journal of Perinatology (2016) 36, S21–S28

www.nature.com/jp

SYSTEMATIC REVIEWS

Efficacy and safety of CPAP in low- and middle-income countries

A Thukral, MJ Sankar, A Chandrasekaran, R Agarwal and VK Paul

Pooled analysis of four observational studies in Fiji, South Africa and Malawi showed 66% reduction in in-hospital mortality in preterms (OR 0.34, (%%CI 0.14 to

Low-cost bubble CPAP

OR 0.56
(95%CI 0.36-0.86, *P* 0.01)

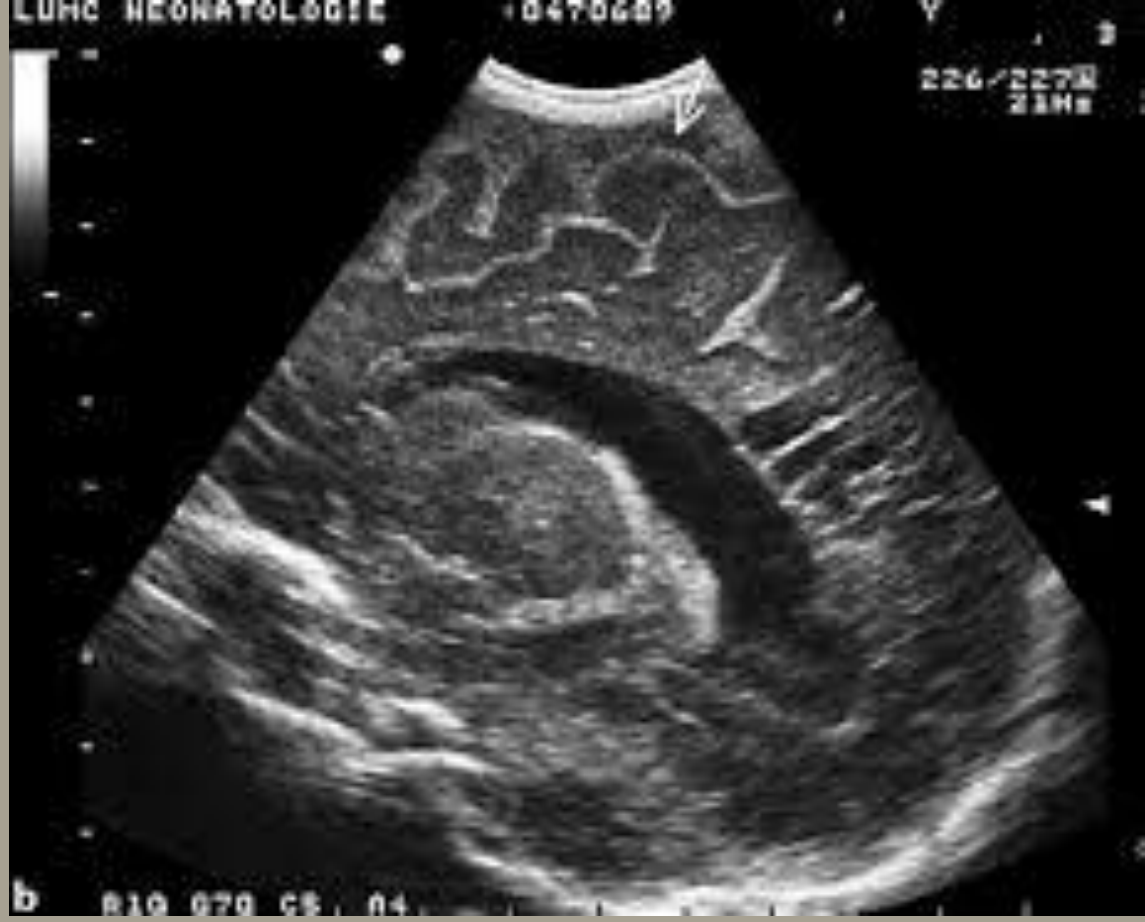
Oliello *et al. BMC Pediatrics* (2019) 19:311
https://doi.org/10.1186/s12887-019-1698-x

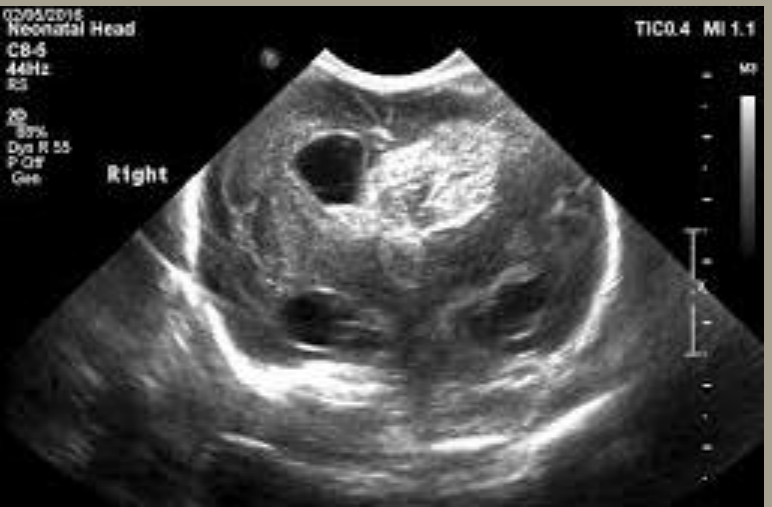
BMC Pediatrics

RESEARCH ARTICLE Open Access

Reducing preterm mortality in eastern Uganda: the impact of introducing low-cost bubble CPAP on neonates <1500 g

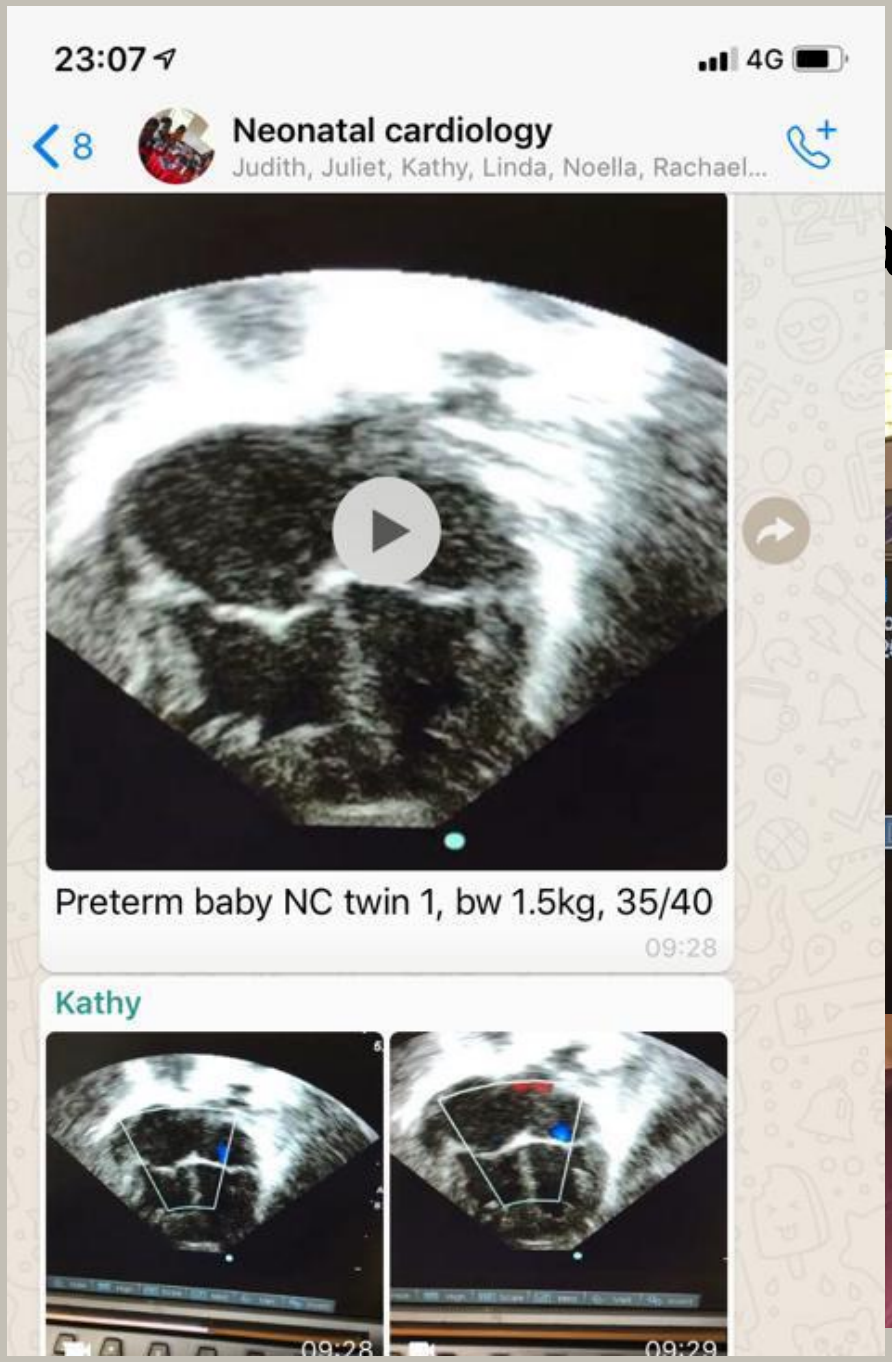
F. Oliello[1,2], E. Egiru[3], J. Ikiror[4], L. Acom[4], KSM Loe[5], P. Olupot-Olupot[1,3] and K. Burgoine[3,4*]

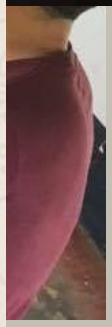




Cranial ultrasound skills

ardiography





Key messages

- Implementation of a low-cost hospital based neonatal care within the existing healthcare system can have a significant impact on preterm mortality in a resource-limited setting
- Focusing on simple, affordable and sustainable care can have a **HUGE** impact on neonatal survival
- We must use the people you have around us and **FOCUS** on educating and training the nursing staff and the patient attendants
- These **SIMPLE** changes require minimal cost
- High dependency care is **POSSIBLE** in a low-resource setting
- These proven methods now need **SCALING-UP**
- We must prioritise this **NOW**
- You can **ALL** make a difference

Our future

~~The~~ Our vision

"A world in which there are no preventable deaths of newborns or stillbirths, where every pregnancy is wanted, every birth celebrated, and women, babies and children survive, thrive and reach their full potential"

Thank you

With deep gratitude to all the mothers, fathers, grandmothers and staff on the Neonatal Unit in Mbale Regional Hospital for their dedication to improving the lives of these little friends.

Thank you to Mbale Regional Referral Hospital administration and Born on the Edge for their support.