

IRCBG_21083

“Introduzione alla gestione neonatale nei paesi a basse risorse”

Dove, quando e perché muoiono i neonati

Trieste, 23 settembre 2021

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**High income countries
~12 million births**



**Middle income countries
~39 million births**



**140 million births
per year**
2.5 million neonatal deaths



**Low and middle income countries,
especially humanitarian settings
~44 million births at home**



**Low and middle income countries
~45 million births in hospitals**

**ogni anno 30 milioni di neonati
sono a rischio di morte o di disabilità**

2.5 milioni muoiono nel periodo neonatale (0-28giorni)
80% di questi sono LBWIs
66% sono nati pretermine (?)

1 milione sopravvive con sequele a lungo termine

«non possiamo raggiungere una copertura sanitaria universale ...senza un importante e crescente investimento sulle mamme e sui neonati»

T.A.Ghebreyesus, WHO
H.H.Fore, UN Children's Fund

«Survive and thrive, transforming care for every small and sick newborn», WHO, 2019

every newborn's rights

« deve essere sollecitata una particolare attenzione alla mortalità neonatale che costituisce una crescente proporzione della mortalità infantile (U5)»

Committee on the rights of the Child, 2013

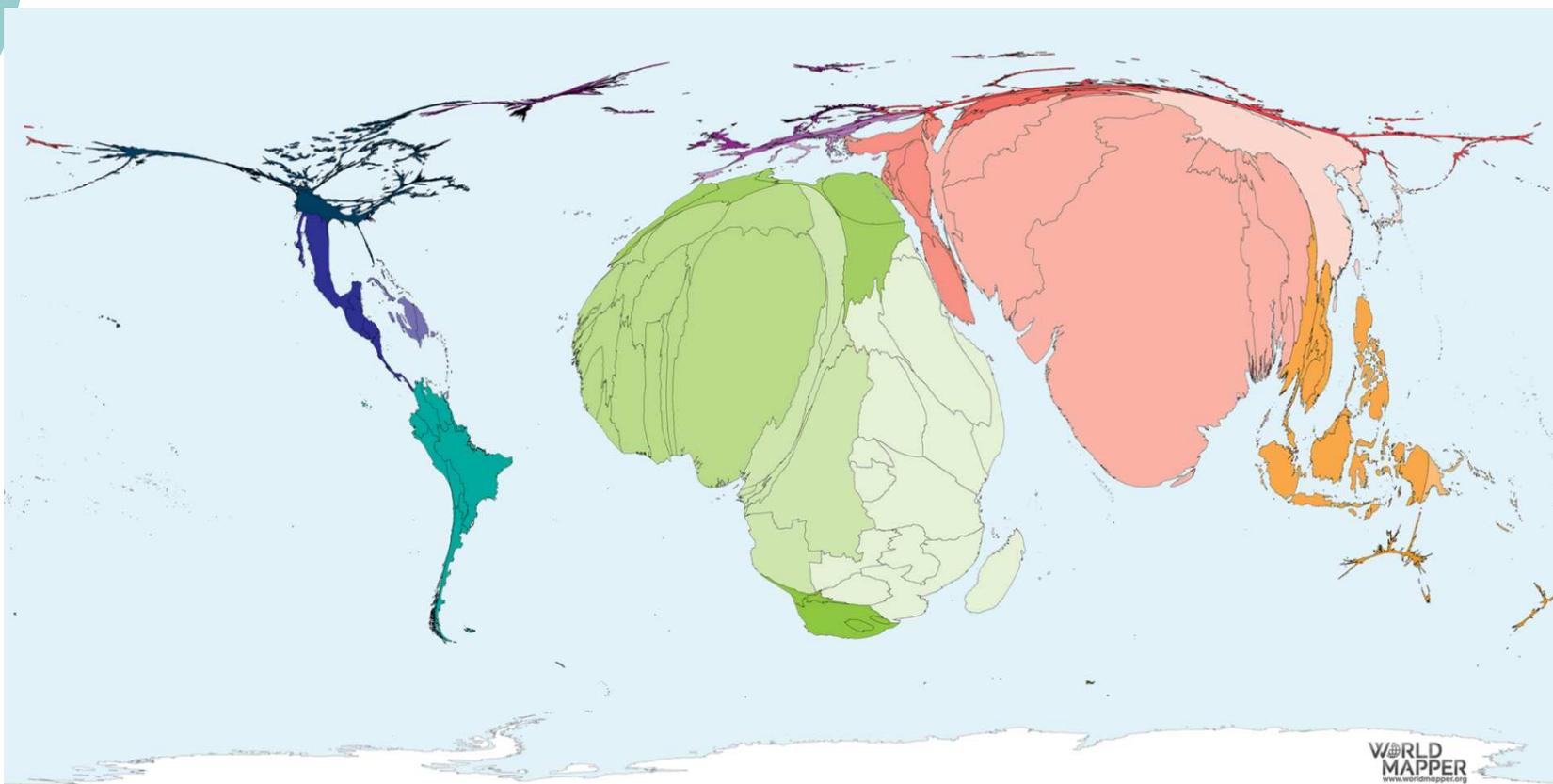
mortalità neonatale vs mortalità infantile

riduzione dell'incidenza dal 2000 al 2017

0-5 anni (U5)	-60%
1-11 mesi	-51%
0-1 mese (28gg)	-41%

UN IGME,2018

come la mortalità neonatale «deforma» la geografia



la mortalità neonatale varia in modo significativo fra i vari paesi,
dallo 0.9 al 44 per mille



il 98% dei decessi neonatali avviene nei LMICs
(nel 75% in sud Asia e Africa subsahariana)

8 dei 10 paesi dove è massimo il rischio di morte neonatale sono nell’Africa sub-sahariana, 2 nell’Asia meridionale

Dei 16 paesi con gli indici di mortalità più alta , 11 sono stati interessati da crisi umanitarie come conflitti armati o instabilità politica

Table 3.2 High neonatal mortality rate (NMR) and humanitarian crisis or conflict, 2017

Country	NMR, 2017
1. Pakistan	44
2. Central African Republic	42
3. South Sudan	40
4. Afghanistan	39
5. Somalia	39
6. Lesotho	38
7. Guinea-Bissau	37
8. Mali	35
9. Chad	35
10. Côte d'Ivoire	34
11. Mauritania	34
12. Sierra Leone	34
13. Nigeria	33
14. Benin	33
15. Comoros	32
16. Djibouti	32

Sources: World Bank, Harmonized list of fragile situations 2018; United Nations Inter-agency Group for Child Mortality Estimation. Estimates for NMR in 2017.

Quattro paesi sommano quasi la metà di tutte le morti in epoca neonatale

India	605.000
Nigeria	241.000
Pakistan	241.000
RD Congo	98.000

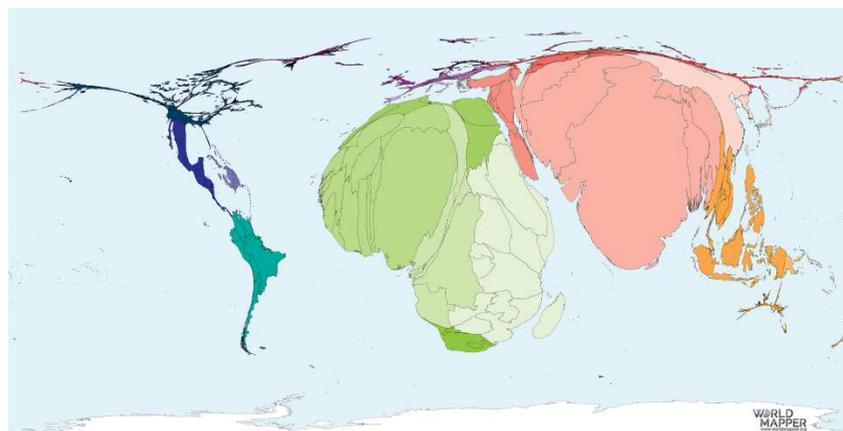
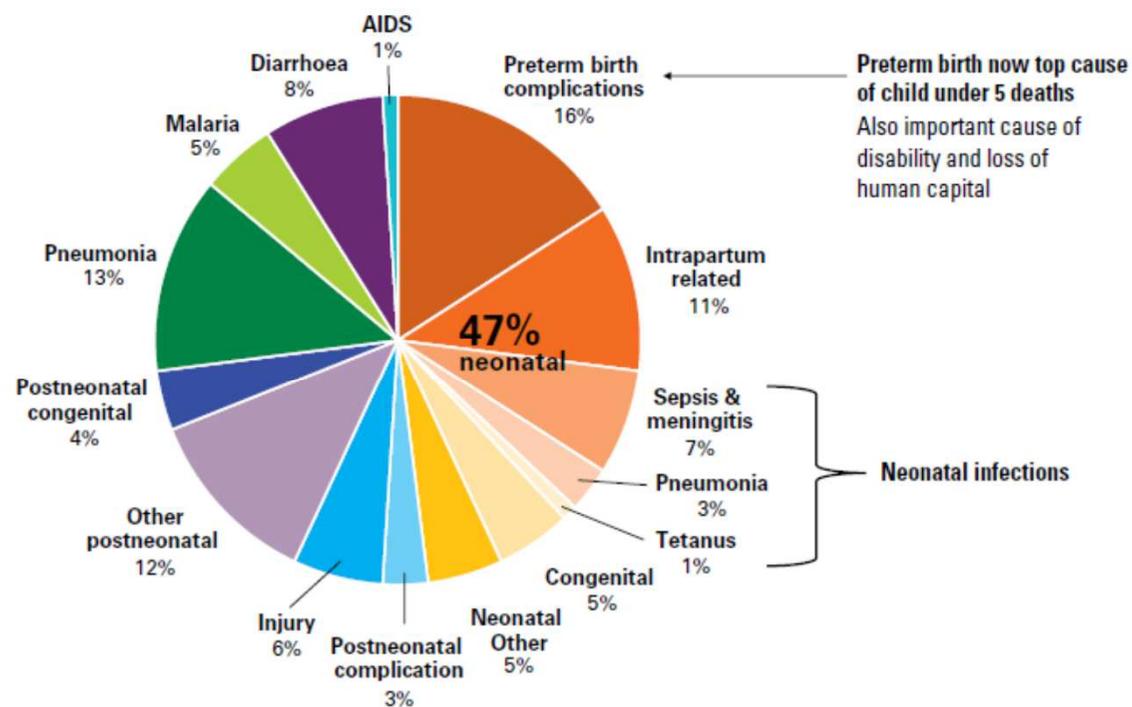
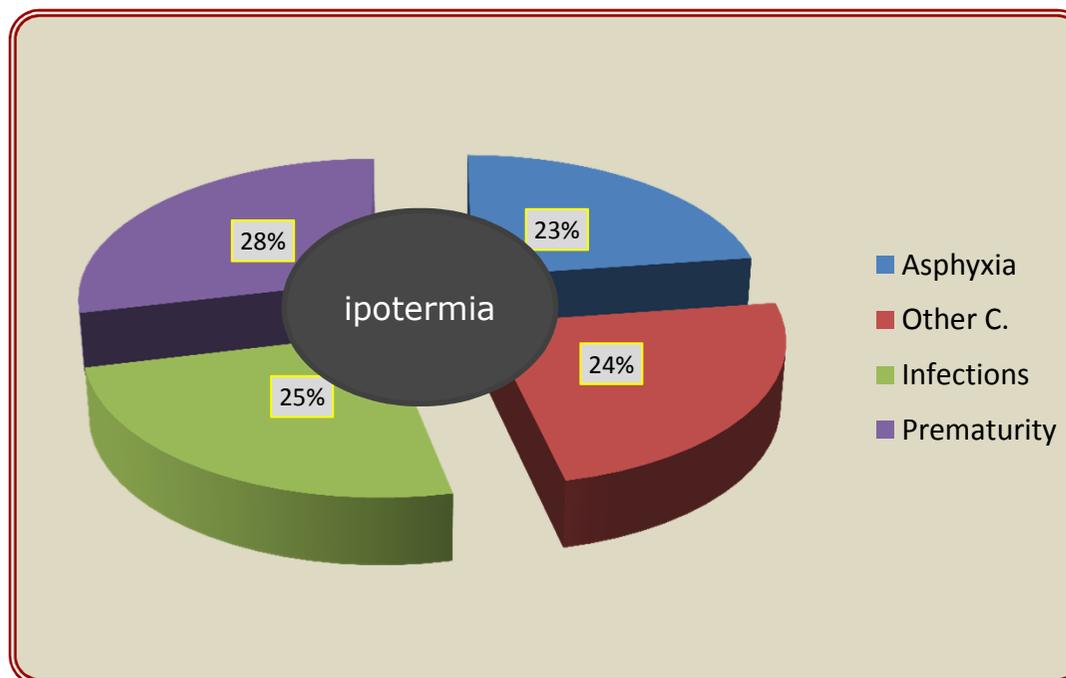


Fig. 2.4 Global causes of death in children under 5 years of age



Source: Analysis update from *The Lancet Every Newborn* (6). Source: Data from WHO estimates for 196 countries for neonatal cause of death on WHO Global Observatory (16). Updated analyses for 2016 by Shefali Oza with Joy Lawn. NMRs from United Nations Inter-agency Group for Child Mortality Estimation (7).



Black RE, Cousens S, Johnson HL, Lawn JE, Rudan I, et al. (2010) **Global, regional, and national causes of child mortality in 2008: a systematic analysis.** Lancet 375: 1969–1987.



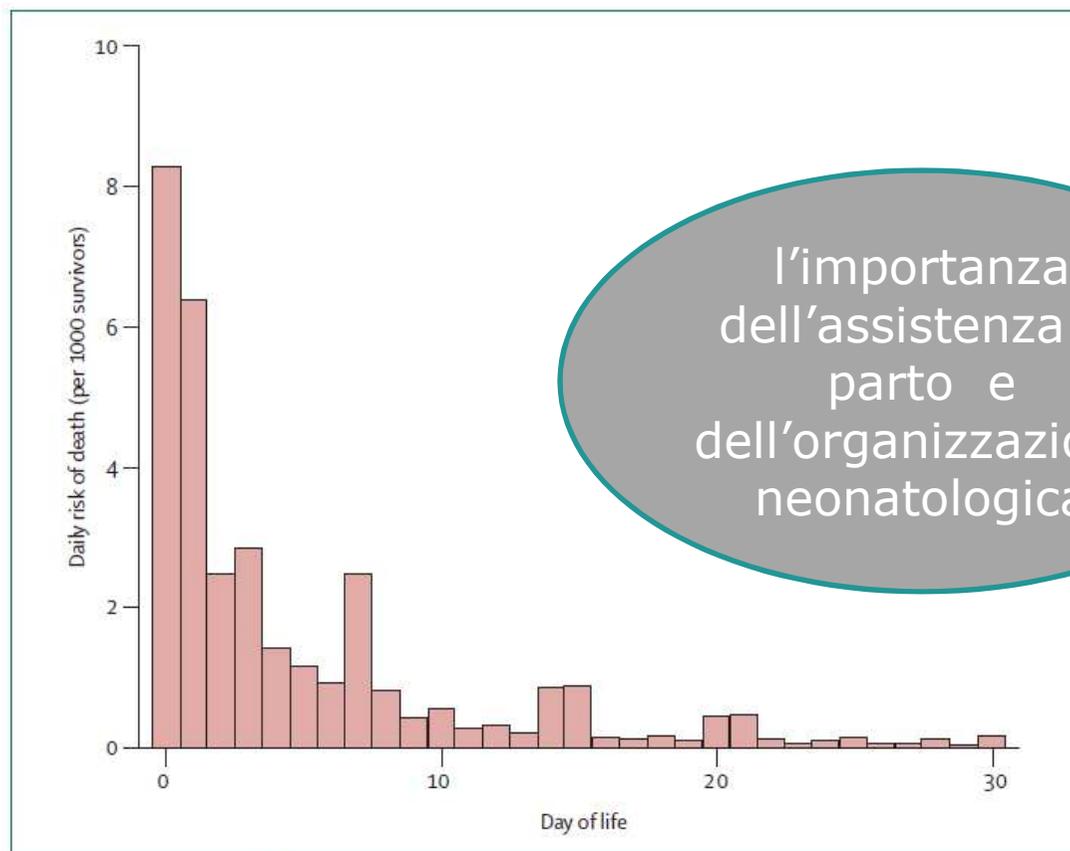
«too small, too soon»,
massimo rischio di morte



Global burden of LBW

- ▶ Every year **20 million** (~15% of all births) infants are born with LBW
- ▶ **>95%** are in LMICs
- ▶ Account for **70-80%** of all neonatal deaths
- ▶ LBW infants are also at increased risk of **early growth retardation** and **developmental delay**





l'importanza
dell'assistenza al
parto e
dell'organizzazione
neonatologica

JE Lawn, S Cousens, J Zupan for the Lancet Neonatal Survival Steering Team, Lancet 2005; 365;891-900

non muoiono solo i neonati....

Morti in età neonatale 2.5 milioni

Morti in utero 2.6 milioni

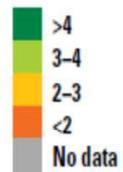
Mamme morte 303.000

5.4 milioni

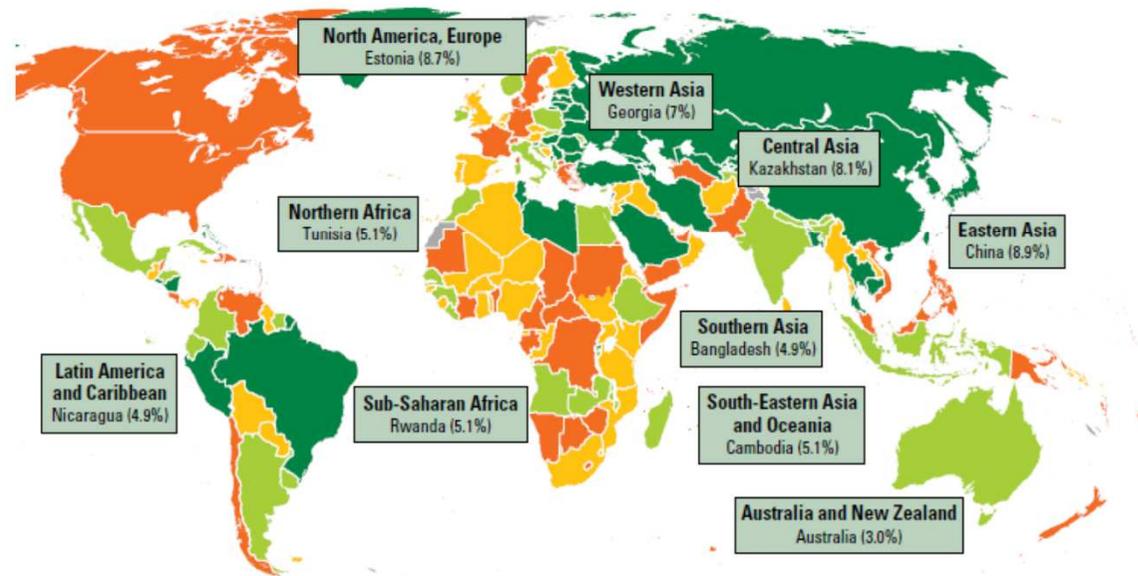
l'importanza del
«continuum of care»

la maggior parte (2.9 milioni) sono evitabili

Average annual rate of reduction
in neonatal mortality rate,
2000–2017 (%)



1 Average annual neonatal mortality rate reduction (2000–2017),
highlighting the countries making fastest progress and the fastest in each region



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In 2019, neonatal mortality rate for Malawi was **19.8 deaths per 1,000 live births**. Neonatal mortality rate of Malawi fell gradually from 69.5 deaths per 1,000 live births in 1970 to 19.8 deaths per 1,000 live births in 2019.



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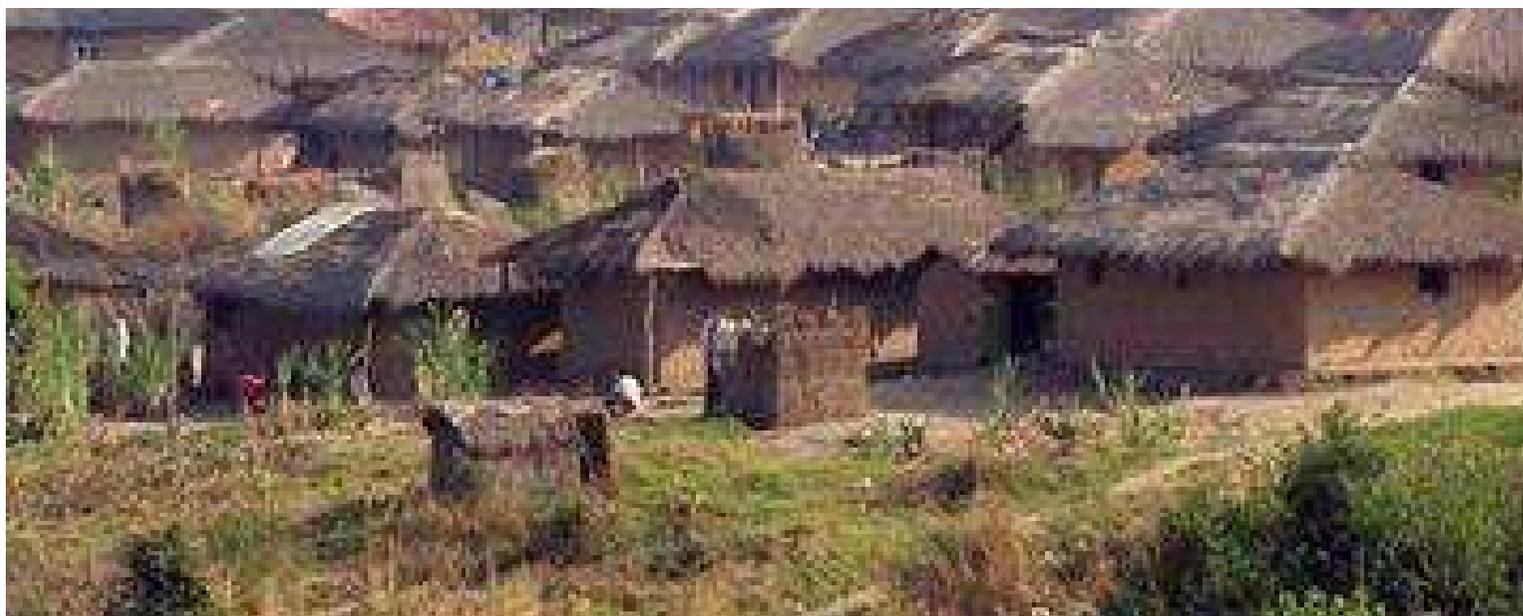


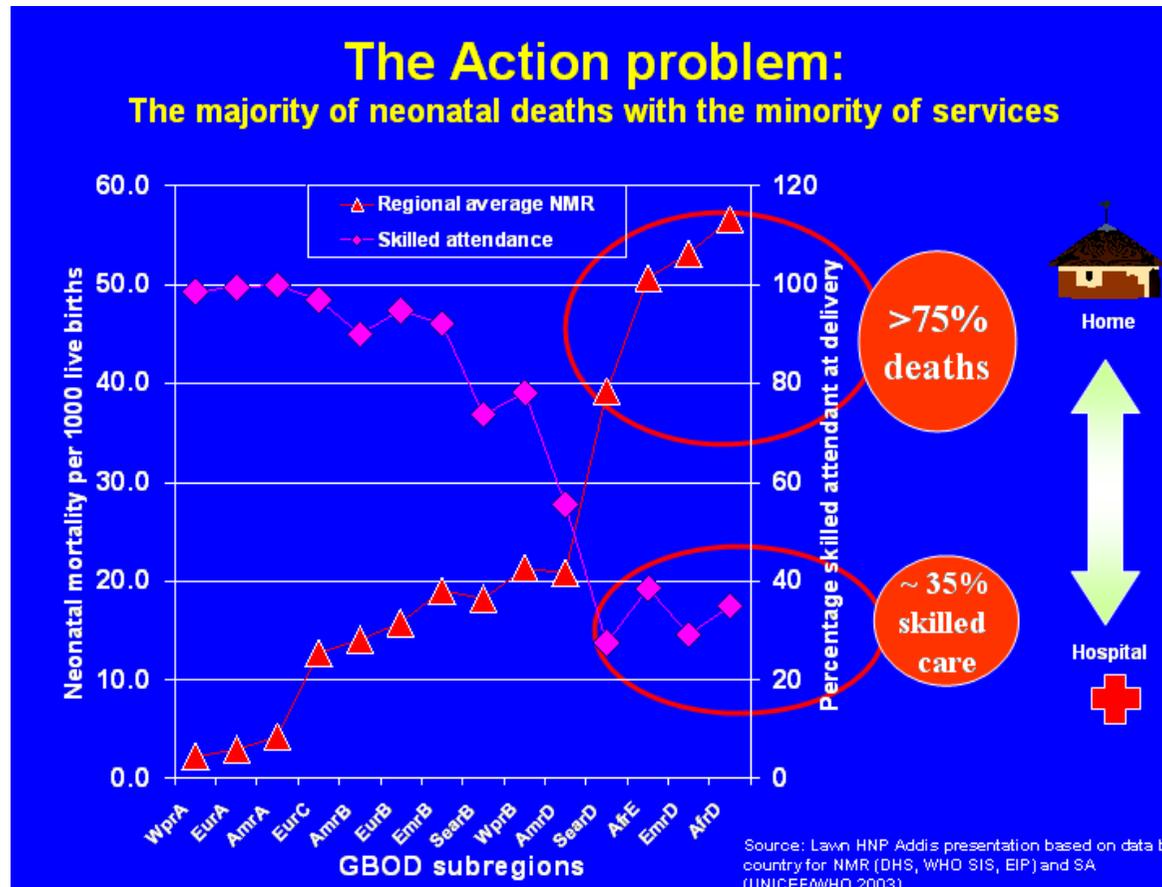
**Low and middle income countries
~45 million births in hospitals**

Massimo rischio fra le popolazioni emarginate



Massimo rischio nelle aree rurali





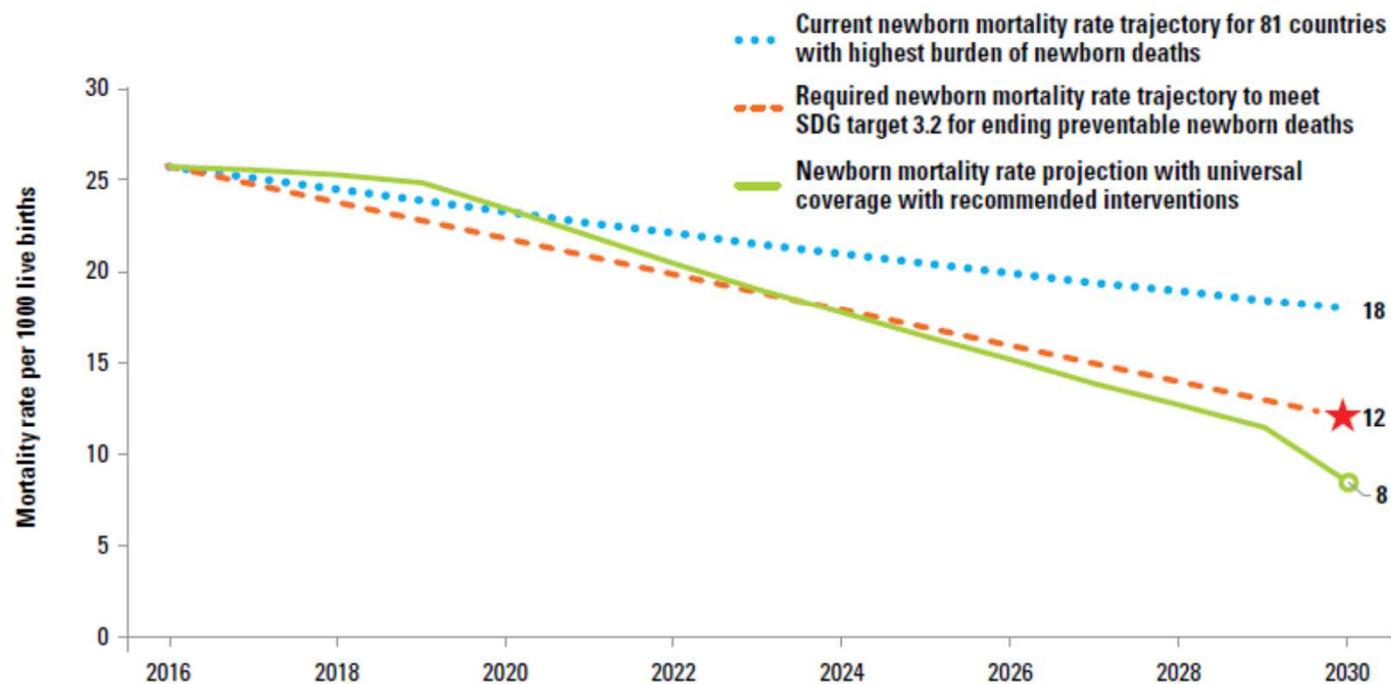
aspetti culturali e antropologici

Too small, too soon, too sick...

La non sempre facile accettazione
di una nascita «al di fuori della regola»

«rat-size baby»

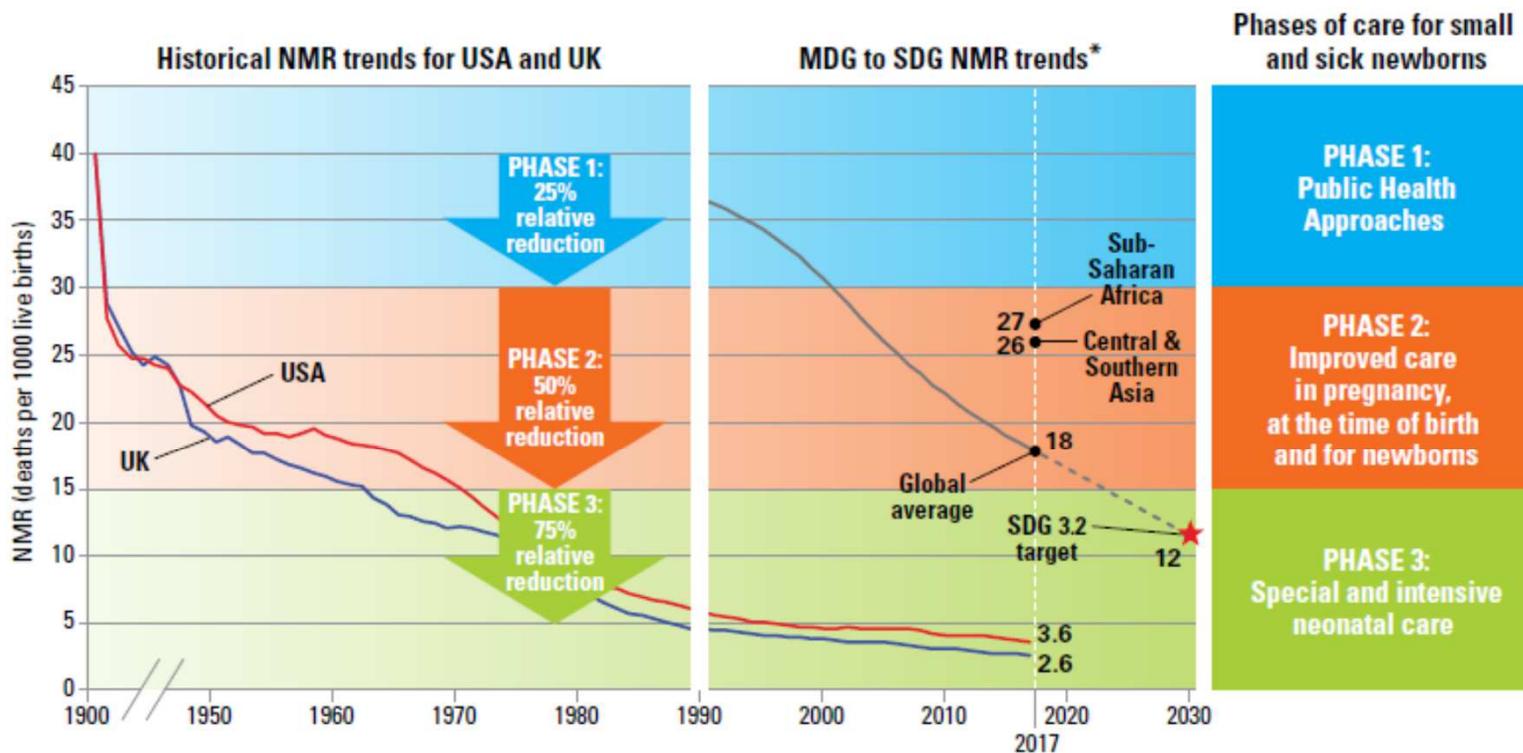
Fig. ES.1 Scenarios to 2030 for 81 high-burden countries: current newborn mortality rate trajectory; required trajectory to meet SDG target 3.2; and projection with every newborn covered by universal health coverage



Source data: UN IGME 2017 (3); projected trajectory calculated using Lives Saved Tool.

Miti da sconfiggere: per ridurre la mortalità di mamme e neonati servono gli stessi interventi altamente tecnologici fatti nei HICs che hanno costi non sostenibili dai LMICs

Paesi ad elevato reddito come USA e UK hanno visto un declino della mortalità neonatale prima dell'introduzione della terapia intensiva neonatale attraverso una combinazione di fattori non direttamente correlati alla tecnologia (iniziative di salute pubblica, attenzione alle infezioni e all'ipotermia, uso razionale degli antibiotici...). Gli stessi interventi possono avere successo nei LMICs nel ridurre la mortalità



*SDG 3.2 target: all countries to reduce neonatal mortality to at least as low as 12 per 1000 live births by 2030.

Sources: UN IGME 2017 estimates (3), March of Dimes, PMNCH, Save the Children, WHO. Born too soon: the global action report on preterm birth (13).

Essential newborn care	<p>Immediate newborn care (thorough drying, skin-to-skin contact of the newborn with the mother, delayed cord clamping, hygienic cord care), neonatal resuscitation (for those who need it); early initiation and support for exclusive breastfeeding; routine care (Vitamin K, eye care and vaccinations, weighing and clinical examinations); prevention of mother-to-child transmission of HIV; assessment, management and referral of bacterial infections, jaundice and diarrhoea, feeding problems, birth defects and other problems; pre-discharge advice on mother and baby care and follow-up.</p>
Special newborn care	<p>Thermal care; comfort and pain management; kangaroo mother care; assisted feeding for optimal nutrition (cup feeding and nasogastric feeding), safe administration of oxygen; prevention of apnoea; detection and management of neonatal infection; detection and management of hypoglycaemia, jaundice, anaemia and neonatal encephalopathy; seizure management; safe administration of intravenous fluids; detection and referral management of birth defects.</p> <p><i>Transition to intensive care:</i> continuous positive airway pressure; exchange transfusion; detection and management of necrotizing enterocolitis (NEC); specialized follow-up of infants at high risk (including preterm).</p>



fondamentale il ruolo della KMC

Kangaroo Mother Care – Cochrane review 2016

40% reduction
in neonatal mortality

65% reduction
in sepsis

58% reduction in hospital
readmission in infancy

72% reduction
in hypothermia

Improved exclusive
breastfeeding at 1-2 months

88% reduction
in hypoglycemia

Improved weight gain, length
and head circumference



Immediate KMC improves survival in LBW infants



Department of Maternal, Newborn, Child and Adolescent Health, and Ageing

Published online 2020 Jan 31. doi: [10.1186/s13063-019-4044-6](https://doi.org/10.1186/s13063-019-4044-6)

PMCID: PMC6995072

PMID: [32005286](https://pubmed.ncbi.nlm.nih.gov/32005286/)



Trials

BMC

[Trials](https://doi.org/10.1186/s13063-019-4044-6). 2020; 21: 126.

Published online 2020 Jan 31. doi: [10.1186/s13063-019-4044-6](https://doi.org/10.1186/s13063-019-4044-6)

Operationalising kangaroo Mother care before stabilisation amongst low birth Weight Neonates in Africa (OMWaNA): protocol for a randomised controlled trial to examine mortality impact in Uganda

[Melissa M. Medvedev](#),

[1,2,3 Victor Tumukunde](#),⁴ [Ivan Mambule](#),⁴ [Cally J. Tann](#),^{1,3,4,5} [Peter Waiswa](#),^{6,7}

[Ruth R. Canter](#),³ [Christian H. Hansen](#),^{3,4} [Elizabeth Ekirapa-Kiracho](#),⁶ [Kenneth Katumba](#),⁴ [Catherine Pitt](#),⁸

[Giulia Greco](#),^{4,6,8} [Helen Brotherton](#),^{1,3,9} [Diana Elbourne](#),³ [Janet Seeley](#),^{4,8} [Moffat Nyirenda](#),^{3,4} [Elizabeth Allen](#),³

and [Joy E. Lawn](#)^{1,3}



KMC before stabilization

Two small studies in Vietnam and South Africa had shown that skin to skin contact started immediately after birth is safe and helps LBW babies stabilize faster



SURVIVE and THRIVE

Transforming care for every
small and sick newborn





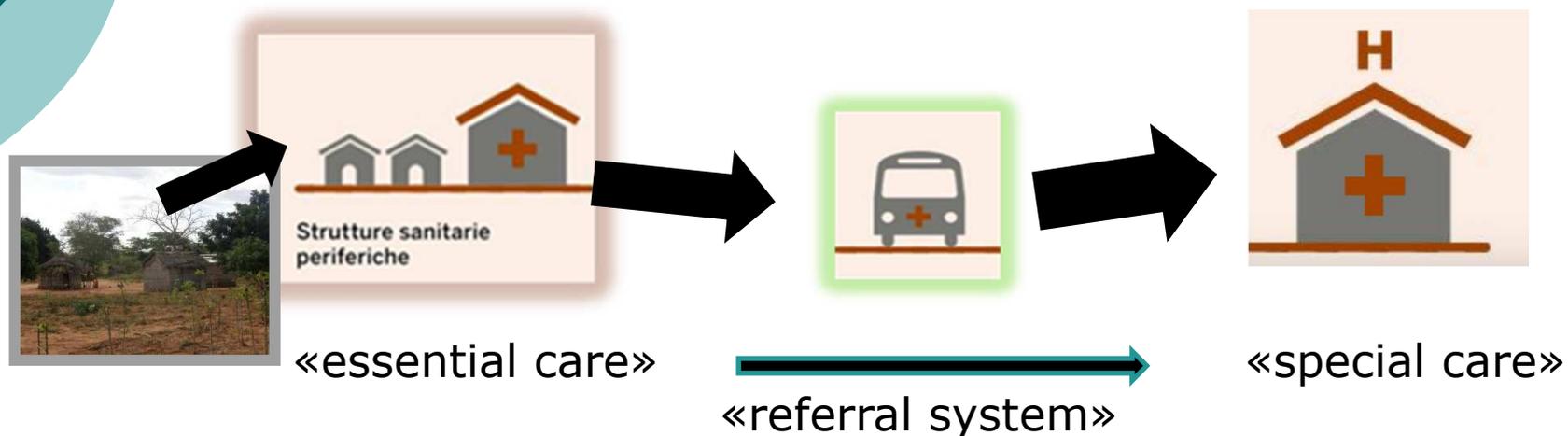
«transforming care for every small and sick newborn»

«zero separation» mamma-neonato

Spazi adeguati (M-NICU)
Assistenza centrata sulla persona
Coinvolgimento delle famiglie («family centred care»)
Alleanza personale sanitario- famiglia

Riduzione stress sensoriale
Riduzione esperienze di dolore
Protezione del sonno
Cure posturali
STS & **KMC**

**l'assistenza al neonato di basso peso implica
un'organizzazione territoriale «hub & spoke»**



ad ogni livello devono corrispondere adeguate capacità assistenziali
fondamentale il ruolo del personale infermieristico



«referral system».....

grazie