

# SURVIVE and THRIVE

Transforming care for every  
small and sick newborn

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## Aetiology of neonatal sepsis and meningitis in Africa

- 82 studies (2008 – 2018)
- 52465 neonates
- 19 countries
- Almost all hospital-based (mostly urban tertiary referral facilities)

### Neonatal bacteraemia or sepsis

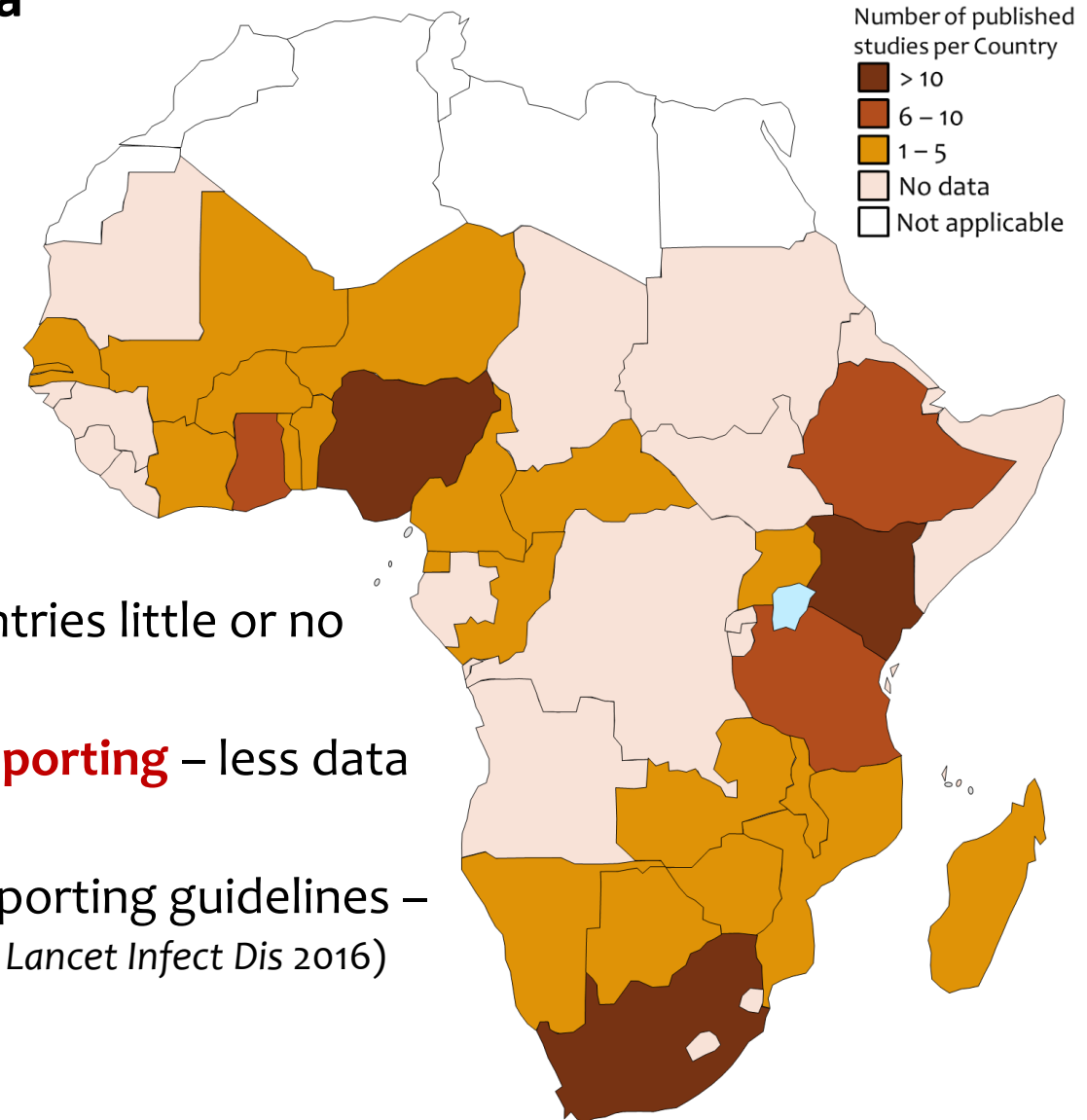
- Staphylococcus aureus 25% (21% – 29%)
- Klebsiella spp 21% (16% – 27%)
- Escherichia coli 10% (8% - 10%)

### Neonatal meningitis

- Group B Streptococcus 24% (16% – 33%)
- Streptococcus pneumoniae 17% (9% – 26%)
- Staphylococcus aureus 12% (3% - 25%)

### Resistance to WHO recommended antibiotics

- $\beta$ -lactams 68% (614/904 cases)
- Aminoglycosides 27% (317/1176 cases)



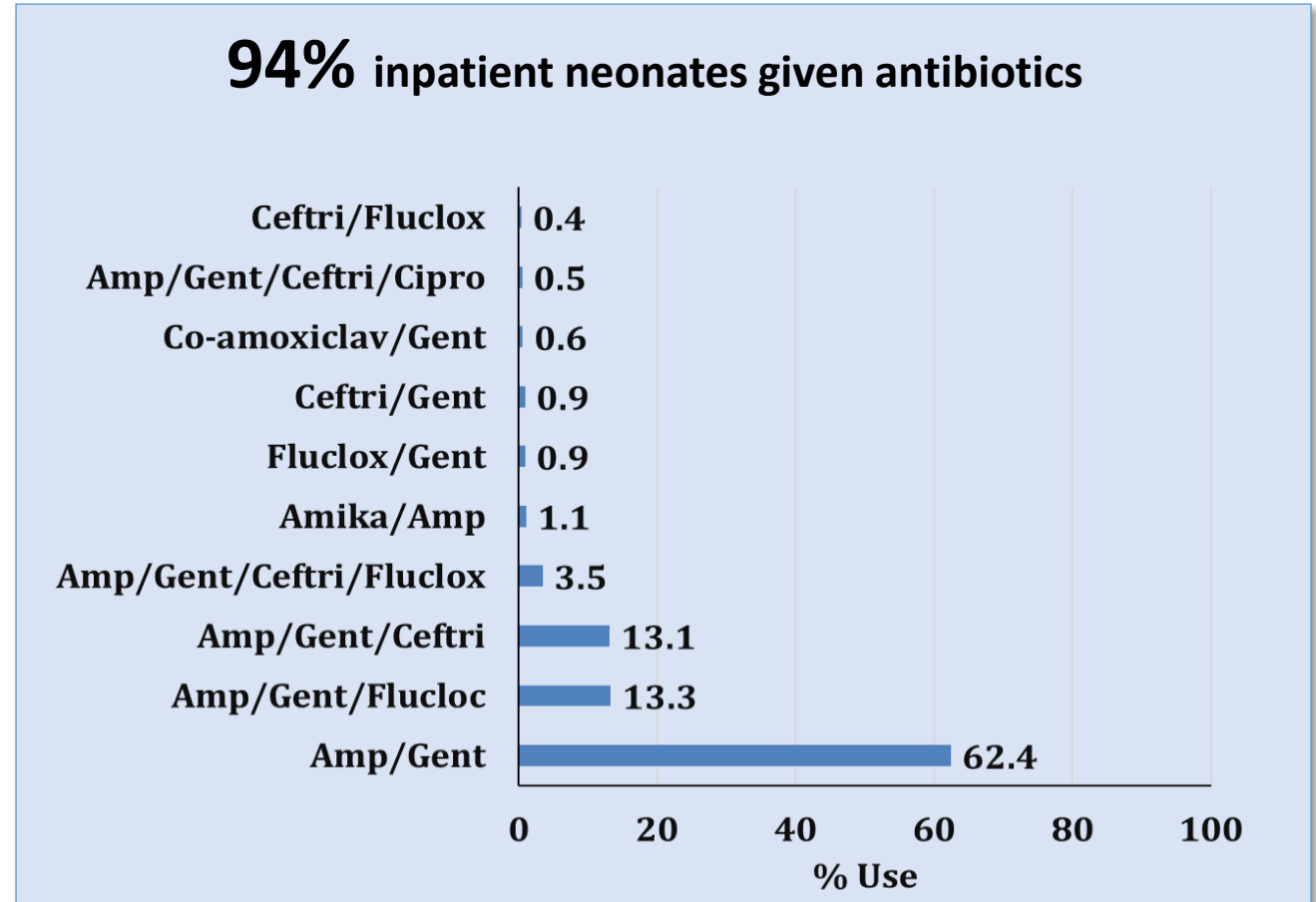
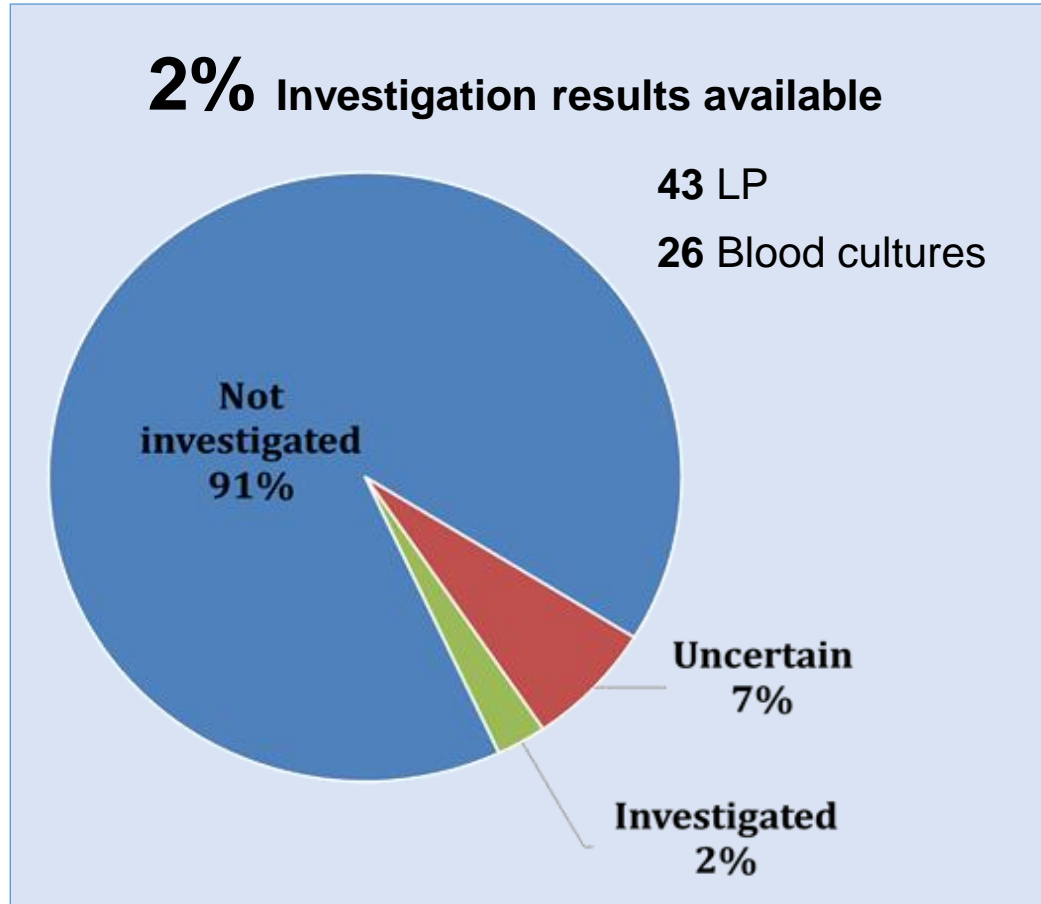
- **Data gaps** – many countries little or no data
- More **consistency in reporting** – less data wastage
- Use of standardised reporting guidelines – **STROBE NI** (Fitchett et al. Lancet Infect Dis 2016)

Okomo U et al. Lancet Infect Dis 2019



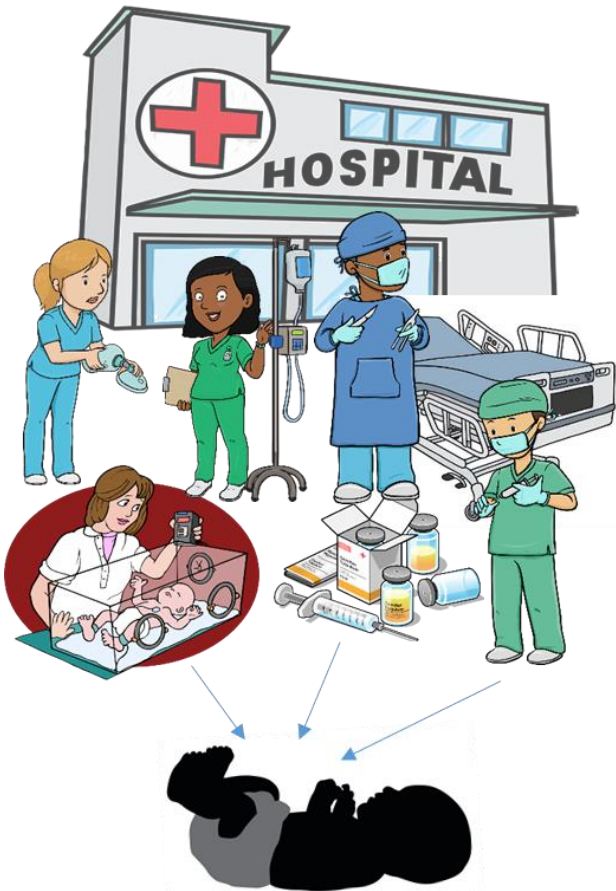
# Neonatal “presumed infection” cases in a Gambian Teaching Hospital (N=4999)

Mismatch of investigation vs antibiotics use

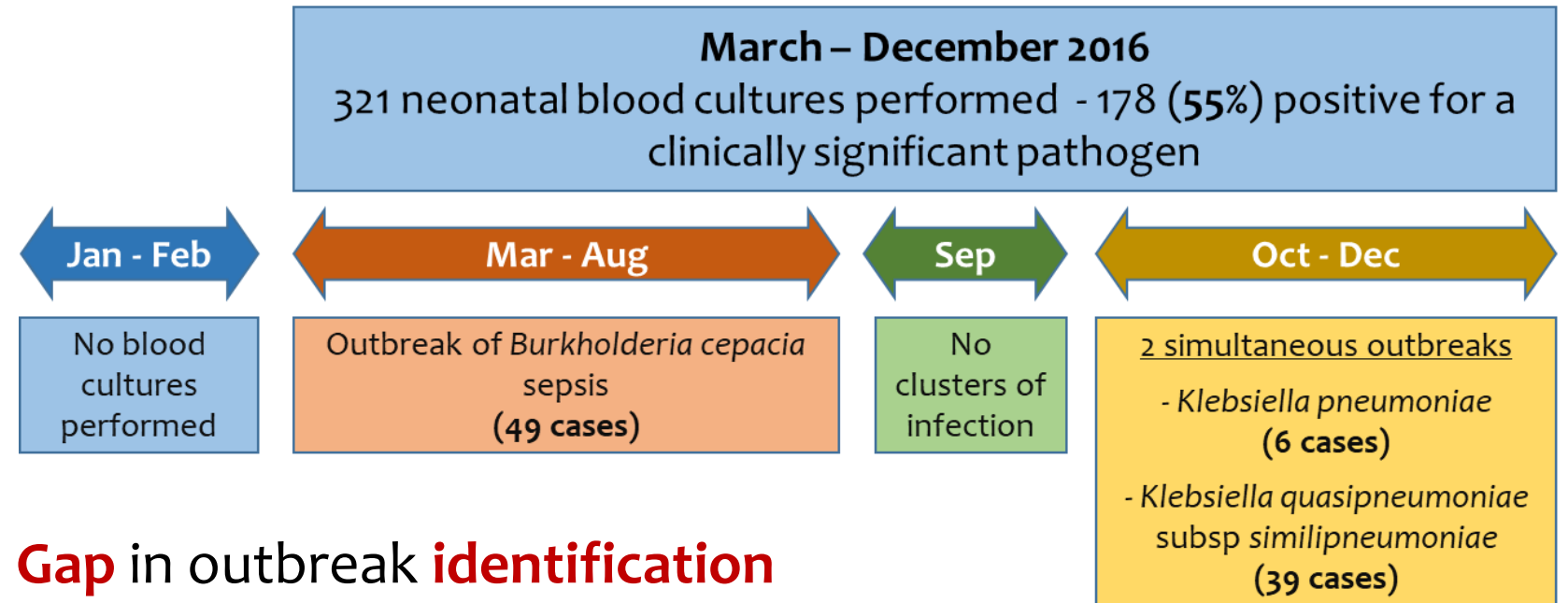


Okomo U *et al.* Paediatr Int Child Health. 2015 and PhD thesis, LSHTM 2018

# Hospital-acquired neonatal infections – endemic infections & outbreaks



Babies born in or admitted to hospital are exposed to multiple sources of infection



- **Gap** in outbreak **identification**
- HAI with **high CFR** (~50%)
- **Recurrent *B. cepacia*** and now **MDR ESBL *Klebsiellae***
- **Extrinsic contamination** of **IV fluids** and **antibiotics**
- Suboptimal IPC and poor hand hygiene

Okomo U et al. Lancet Microbe (Forthcoming 2020)

## Improving quality of care for newborns - recommendations

### PREVENTION



Environmental and hand hygiene

### CARE



Better care both to prevent and treat infections

### DETECTION



More cultures and other diagnostics

### RESPONSE



Improved laboratory support and rapid response

### SYSTEMS



Policy & Guideline development, Audit



Neonatal unit IPC Plan and Team



# Dr Ornella Lincetto, WHO