**CHIFA/HIFA Spotlight on Group B Streptococcus (GBS)**

*A synthesis of 66 messages from 14 contributors across Ethiopia, Gambia, Japan, Kenya, Nigeria, Tanzania, Uganda, UK, USA.*

*In partnership with Group B Strep International and sponsored by Kelli and Kevin Smith in honour of their daughter Finley Genevieve*

*Landing page: www.hifa.org/gbs ; CHIFA messages: www.hifa.org/readchifa*

**1. Personal and Professional Experience of GBS Disease**

**Parents' testimonies: lived experience of loss and advocacy**

Several parents shared deeply moving accounts of losing their babies to GBS.

- **Kelli Smith (USA)** lost her daughter *Finley Genevieve* at 24 hours old. Her message emphasises that *"a negative prenatal GBS screening result does not eliminate the possibility of early-onset GBS disease"* and that newborns can deteriorate with "extraordinary speed."
- **Marti Perhach (USA)** lost her daughter *Julia "Rose"* to GBS-related stillbirth. She describes being falsely reassured by clinicians and receiving incomplete information: *"My OBs did not give me accurate information as to how to help protect my baby from GBS."*
- **Dura Schlei (USA)** lost her daughter *Saylor* to late-onset GBS meningitis at one month.
- **Katy Butler (USA)** describes her son Elliott's disability following early-onset GBS: *"Elliott is 1 in 8 survivors with significant disabilities."*

These stories highlight recurring themes:

- False reassurance from negative screening
- Subtle early symptoms being overlooked
- Delayed treatment
- Lack of clear information for parents
- The devastating speed of disease progression

**Clinicians and researchers: professional experience**

Contributors from Ethiopia, Kenya, Gambia, Japan, Nigeria and Tanzania described clinical and research experience:

- **Ethiopia (Mucheye Gizachew)**: A 2020 study found GBS in *64% of culture-negative CSF samples* among infants with suspected meningitis. *"GBS was detected in 64%... compared with zero-detection rate by culture."*

- **Gambia (Claire Oluwalana)**: Neonatal sepsis is common; diagnostic tools are limited. *"We do not always know the aetiology… we can only make presumptive diagnoses."*
- **Japan (Hajime Takeuchi)**: National guidelines recommend universal screening; surveillance shows mortality of 2.8% and neurological sequelae in 7.3% of paediatric cases.
- **Nigeria (Edamisan Ikuemonisan)**: Highlights the "hidden epidemic" of GBS, major data gaps, and the cost-effectiveness of maternal vaccination.
- **Tanzania (Rabia Khaji)**: Emphasises the role of community health workers and the need for early recognition of newborn danger signs.
- **UK (Stephanie Lyons)**: Research shows families feel unprepared for late-onset GBS and may experience long-term psychological distress.

**2. The Situation in Different Countries**

**Ethiopia**

- No national screening programme.
- High burden of neonatal meningitis; GBS likely under-recognised.

**Gambia**

- Limited diagnostic capacity; early-onset neonatal sepsis often undiagnosed.
- Screening unavailable.

**Japan**

- Universal screening at 35–37 weeks.
- Clear guidelines for intrapartum antibiotics.
- Surveillance data available for early-, late-, and ultra-late-onset disease.

**Kenya**

- GBS recognised as a priority for policy translation.

**Nigeria**

- GBS colonisation common (approx. 12–13%).
- Surveillance absent in 19 states.
- ANC coverage low (50% attend ≥4 visits).
- Modelling suggests that maternal vaccine (not yet available) would be cost-effective

**United Kingdom**

- No universal screening; risk-based approach.
- NHS guidance does not align with WHO 2024 guideline.
- NICE does not recommend routine screening.

**United States**

- Universal screening at 36-37 weeks.
- Parent testimonies highlight gaps in strategy (e.g., rapid labour <4h, missed antibiotics).

**3. What Can Be Done to Reduce the Burden of GBS Disease?**

**Universal screening**

WHO 2024 guideline recommends universal screening at 35–37 weeks and intrapartum antibiotics ≥4 hours before delivery, 'where feasible'. Contributors emphasised:

- Screening must be accessible and accompanied by clear information.
- Rapid tests at labour onset could potentially help (but highly accurate tests are not yet available).
- LMICs need investment in laboratory capacity and affordable diagnostics.

**Maternal vaccination**

Strong consensus that maternal GBS vaccines (two efforts are currently in late-stage development) could be transformative. Not yet available.

**Strengthening health systems**

- Surveillance systems to quantify burden and guide policy.
- Training for health workers on early recognition of neonatal sepsis.
- Integration of GBS awareness into ANC, community health programmes, and postnatal care.
- Clear national guidelines aligned with WHO.

**Improving newborn assessment**

Repeated emphasis on early recognition:

- Frequent monitoring for subtle signs (temperature instability, fussiness, breathing changes) must trigger urgent evaluation.
- Every newborn should be monitored closely, especially in the first 72 hours.

**4. What Do Parents Need to Know About GBS Disease?**

**Key messages from contributors**

Parents need to understand:

- **GBS is common and usually harmless in healthy adults** but dangerous for babies from before birth through several months of age.
- **A negative screening test does not eliminate risk.** Colonisation can change between screening and delivery.
- **Warning signs** of early- (birth through six days of age) and late-onset GBS disease (7 days up to 3 months of age) as well as the less common "ultra" late-onset GBS disease which may occur after three months of age:
    - Poor feeding
    - Fever or low temperature
    - Lethargy or irritability
    - Breathing problems
    - Pale or blotchy skin
    - Bulging fontanelle

    (Additional signs are at gbsi.me/GBSsigns)

- **GBS can cross intact membranes**; procedures like membrane sweeping could theoretically increase risk, and should require informed consent from the mother
- **Natural remedies have not been proven to eliminate GBS** and some may be unsafe. Some social media influencers are spreading misinformation which may be dangerous.
- **Parents should seek urgent care** for any newborn behaviour change.

**Information gaps**

Parents often:

- Receive incomplete or inconsistent information.
- Are unaware of late-onset GBS.
- Do not know that colonisation with GBS can occur after a negative screening test
- May not be adequately informed about screening or intrapartum antibiotics.

**5. What Do Health Workers Need to Know?**

**Core knowledge requirements**

Health workers must know:

- National screening policy (universal vs risk-based).
- Proper specimen collection techniques (vaginal–rectal swab, flocked swab, transport within 24 hours).
- Limitations of screening (false negatives, colonisation changes).
- Early signs of neonatal sepsis and the need for immediate treatment.
- Importance of intrapartum antibiotics ≥4 hours before delivery.
- That GBS can cause stillbirth, sepsis, meningitis.

**Training needs**

- Pre-service and in-service training on GBS.
- Guidance for community health workers in LMICs.
- Clear, concise national guidelines.

**6. Common Myths About GBS Disease and How to Address Them**

**Myths identified in the discussion and GBSI resources**

1. **"GBS is only a concern at birth."** *Fact:* It can cause miscarriage, stillbirth, and late-onset disease.
2. **"IV antibiotics aren't worth it."** *Fact:* They reduce neonatal infection by >80%.
3. **"GBS only affects pregnant women."** *Fact:* It can affect non-pregnant adults, eg UTIs as well as life-threatening infections, most often in the elderly or those with medical conditions.
4. **"GBS stillbirths are rare."** *Fact:* Estimated 46,000 GBS-related stillbirths annually worldwide.

5. **“All babies of GBS-positive mothers will be infected.”** *Fact:* Most will not, especially when intrapartum antibiotics are given.
6. **“Natural remedies can eliminate GBS.”** *Fact:* No evidence; some remedies are unsafe.
7. **“GBS is a sexually transmitted infection.”** *Fact:* It is not an STI, though bacteria can be transferred between partners.
8. **“GBS is caused by poor hygiene.”** *Fact:* It is part of normal flora. GBS is not caused by poor hygiene, and it cannot be prevented by improved hygiene.

**Addressing myths**

- Use clear, evidence-based messaging.
- Engage trusted community leaders.
- Improve visibility of reliable information.
- Strengthen the global evidence ecosystem to reduce misinformation.

**7. Additional Themes Not Covered by the Six Questions**

**Policy and guideline adoption**

Participants highlighted challenges in national adoption of WHO guidelines and the need for:

- A global table of national GBS policies.
- Better support for policymakers to adapt WHO guidance.
- Stronger global–local evidence synthesis.

**Long-term outcomes and family support**

Studies show 20–30% of survivors of GBS meningitis have long-term neurodevelopmental impairment. Families need:

- Developmental follow-up
- Hearing and vision screening
- Psychological support
- Guidance for future pregnancies

**Informed consent for membrane sweeping**

Marti raised the question: Should membrane sweeping require explicit informed consent, given that GBS can cross intact membranes? Informed consent is already standard in some guidelines (eg Scotland)

**8. Gaps Identified for Future Discussion**

1. **National policy adoption:**
    - Why do some countries (e.g., UK) diverge from WHO guidance?
    - How can policymakers be better supported?
2. **Feasibility of universal screening in LMICs:**
    - Cost, logistics, training, laboratory capacity.

3. **Maternal vaccination**
    - Maternal vaccination for Group B Strep is not yet available but is anticipated in the near future.
4. **Rapid testing at labour onset:**
    - Rapid GBS tests (eg PCR) already exist and can give results within 60 minutes, but they are not yet widely available or highly accurate
5. **Community-level interventions:**
    - Community health workers and other primary care workers need to be aware of how to prevent, recognise and manage GBS disease. In particular, symptoms in a newborn baby should be acted on urgently.
6. **Long-term follow-up systems:**
    - How to ensure survivors receive developmental care.
7. **Stillbirth investigation capacity:**
    - Access to pathology, training, cultural barriers.
8. **Information needs of fathers and extended caregivers:**
    - Often overlooked in communication strategies.

**9. Three Most Important Points About GBS Disease (from the document)**

1. GBS is common and usually harmless in healthy adults but can cause rapid, life-threatening illness in babies before birth through several months of age.
2. Most early-onset GBS disease is preventable with timely intrapartum antibiotics, yet screening and implementation vary widely.
3. Early signs of GBS disease in infants can be subtle and are often missed; urgent recognition and treatment are essential.

**10. Three Most Important Points for Parents**

1. A negative GBS test does not guarantee safety; colonisation can change.
2. Parents must know the warning signs of GBS infection in babies before and after birth.
3. Clear, reliable, accessible information empowers parents to act quickly and save lives.

**11. Five Most Important Points for Health Workers**

1. Health workers must understand national screening policy and the limitations of screening.
2. Ensure timely screening or all women at 35-37 weeks (in countries with universal screening) and in all at-risk women (in countries with risk-based policies)
3. Understand the criteria of women at risk and screen accordingly
4. Early recognition of neonatal sepsis is critical; delays may be fatal.
5. Proper specimen collection, timely antibiotics, and clear communication with parents are essential.

**12. Three Most Important Points for Policymakers**

1. Establish a national policy for universal screening in line with WHO guidelines, where feasible. Where universal screening is not feasible, develop a clear national policy for a risk-based approach to screening.
2. Countries need surveillance systems to understand burden and guide policy.
3. Policymakers must ensure parents and health workers receive reliable, actionable information as part of national guidelines.

The above summary was assisted by AI (Copilot) and carefully checked and revised by the Spotlight working group.

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