

Neonatal Nursing in the Resource-Limited Setting:
Barriers and Successes



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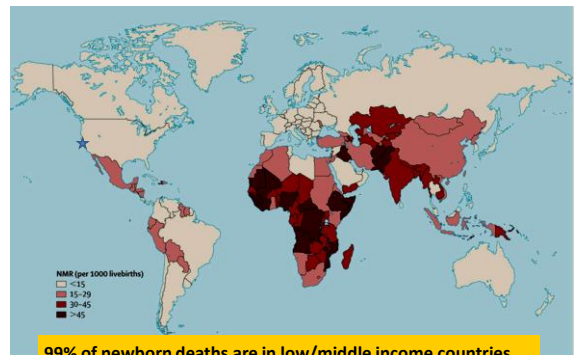
The Travel Bug



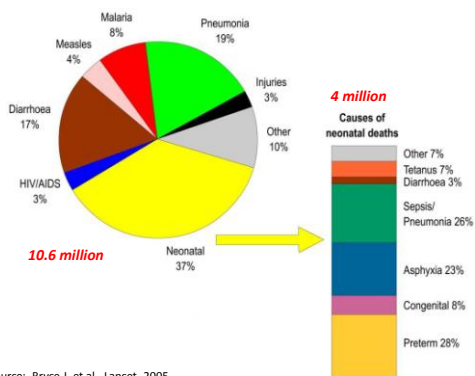
Some Tools For Your Journey...

- Your expertise
- Compassion
- An open mind
- Strong sense of humor
- Flexibility
- Ability to think outside the box
- Lots of vaccinations
- An iron stomach
- A touch of MacGyver

Where We Are Needed: Where Babies Die

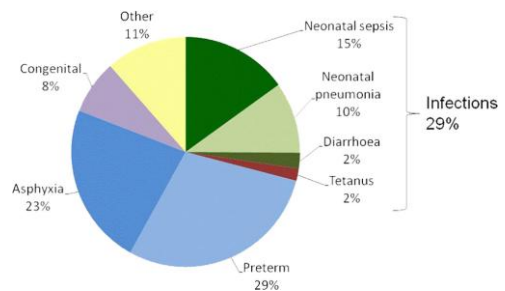


Causes of Under-Five Child Mortality 2005

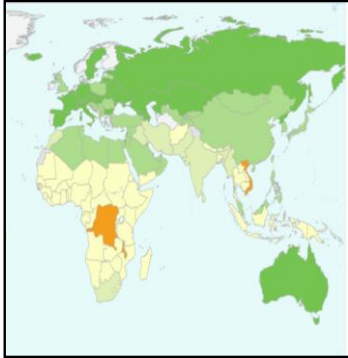


Source: Bryce J. et al., Lancet, 2005

Causes of Neonatal Deaths 2010



Sites Visited



USA and How We Compare

- Total population **318,000,000**
- Gross national income per capita **\$48,820**
- Life expectancy at birth m/f (years) **76/81**
- Probability of dying under five (per 1 000 live births) **8**
- Total expenditure on health per capita 2011 **\$8,608**
- Total expenditure on health as % of GDP (2011) **17.9**

• Figures are for 2009 unless indicated. Source: [Global Health Observatory](#)

Democratic Republic of Congo (DRC)

- Total population **65,705,000**
- Gross national income per capita **\$340**
- Life expectancy at birth m/f (years) **48/51**
- Probability of dying under five (per 1000 live births) **168**
- Total expenditure on health per capita (Intl \$, 2011) **32**
- Total expenditure on health as % of GDP (2011) **8.5**
- Figures are for 2009 unless indicated. Source: [Global Health Observatory](#)

Goma, DRC Challenges

- Long-standing civil war
- Continued civil unrest
- Gender violence
- Limited NGO presence
- Displacement
- Poverty
- Disease
- Lack of government infrastructure
- Volcano
- Lack of medical staff
- Lack of supplies
- Barriers to care-distance, transportation, money, fear

Malawi

- Total population **15,906,000**
- Gross national income per capita **\$870**
- Life expectancy at birth m/f (years) **57/58**
- Probability of dying under five (per 1 000 live births) **83**
- Probability of dying between 15 and 60 years m/f (per 1 000 population) **384/347**
- Total expenditure on health per capita (Intl \$, 2011) **77**
- Total expenditure on health as % of GDP (2011) **8.4**

Figures are for 2009 unless indicated. Source: [Global Health Observatory](#)

Neno, Malawi Challenges

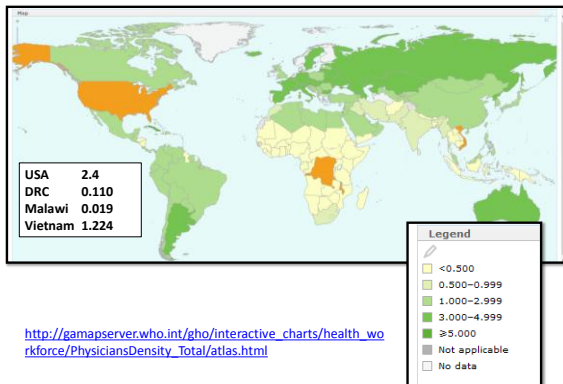
- Poverty
- Disease
- Limited medical workforce
- Limited supplies/equipment
- Barriers to care-distance, transportation, money
- Limited focus on neonates

Viet Nam

- Total population **90,796,000**
- Gross national income per capita **\$3,250**
- Life expectancy at birth m/f (years)**73/77**
- Probability of dying under five (per 1000 live births)**22**
- Total expenditure on health per capita (Intl \$, 2011)**231**
- Total expenditure on health as % of GDP (2011)**6.8**

Figures are for 2009 unless indicated. Source: [Global Health Observatory](#)

Physicians Density per 1,000 Population



Challenges for Nursing in Resource Limited Settings

- Training
- Compensation
- “Brain drain”
- Work load
- Task oriented skills vs critical thinking
- Existing hierarchy

National Hospital for Pediatrics (NHP) Ha Noi-Challenges

- Referral center for 31m population
- High census
- Inadequate staffing and infrastructure
- Task oriented nursing
- Too much equipment??



Other Members of the Workforce

- Midwives
- Skilled birth attendants
- Clinical officers
- Community health workers

Capacity Building

- Capacity building is an ongoing process through which individuals, groups, organizations and societies enhance their ability to identify and meet challenges
- Our role is to facilitate learning, make it sustainable and create independence
- Strong, committed partnership required

International Capacity-Building

- **Advantages**
 - Can provide unavailable services or target underserved areas
 - Train local people in locally relevant methods
 - Concrete results are feasible
 - Sustaining programs is difficult

International Capacity-Building

- **Barriers**
 - Sites with highest needs often the most challenging:
 - Rural communities and underserved areas
 - War, famine, disaster, civil unrest,.....
 - Appropriate use of limited resources: public health vs neonatology?
 - Lack of coordination with local goals and MOH health initiatives
 - Sporadic training → Little continuity and sustainability
 - Equipment: availability / malfunction / maintenance

My Personal Learning Curve

(aka: You're not in Kansas anymore, Dorothy)

- **“Let's go teach!”**
 - *Curriculum development*
 - *MOH approval*
 - *Available resources at site*
 - *Audience*
 - *Time*
 - *Lecture vs Hands on*
 - *Finances*
 - *Language barriers*
 - *Being believed, being heard, changing practice*

Possible Solutions for Neonatal Care

- Putting neonates in spotlight
- Development of neonatal specific training
- Shoulder to shoulder training
- Trust building
- Capacity building
- Compensation
- Empowerment and expanded role development

Putting Neonates in Spotlight



Development of Neonatal Specific Training

- Knowledge (EDUCATIONAL NEEDS ASSESSMENT)
- Learning preferences (EDUCATIONAL NEEDS ASSESSMENT)
- Curriculum development
- Training modules
 - Hospital-based lectures, small groups, skills practica
 - Train-the-trainers
 - Conferences
- Outcome assessment
- Refine and redirect training efforts



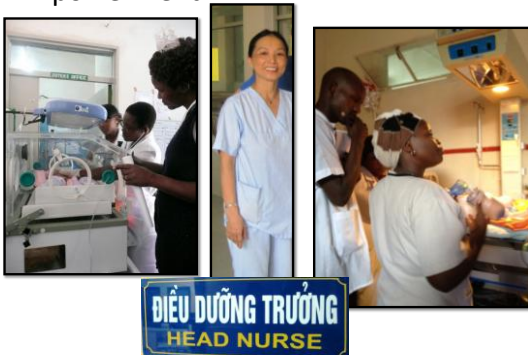
Shoulder to Shoulder Training



Trust Building



Empowerment



Expanded Role Development



Compensation

- Challenges
 - MOH Funding
 - NGO funding

Resources

- Staffing
- Equipment
 - Availability
 - Misuse
 - Malfunction

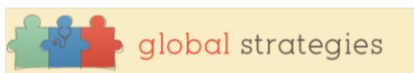
Culture of Medicine and Cultural Beliefs

Health » National

Malawi baby doctors say its genetic condition not witchcraft

Models of Care

- Global Strategies
- Partners in Health
- PEEERS



Partners In Health



Abwenzi Pa Za Umoyo

NHP and UCSF/SFGH Partnership

- **PEEERS:**

Positioning
Education
Empowerment
Evaluation
Re-direction
Sustaining success

Foster Success

- Short-term changes:

- Expanded nursing role
 - Designated space for care of neonates
 - Saturation monitoring, CPAP, Phototherapy
 - Infection control
 - Ventilation techniques/resuscitation
 - Nursing flow sheet

Summary

- Use experts, find champions
- Educational message:
 - Simple, relevant, consistent, repeated
- Empower stakeholder staff
- Evaluate practice change: a critical and the most difficult goal to achieve
- Re-direct and sustain
 - Patience, persistence
 - Shoot for the moon

References

- Blencowe, H., Cousens, S., Mullany, L. C., Lee, A. C., Kerber, K., Wall, S., et al. (2011). Clean birth and postnatal care practices to reduce neonatal deaths from sepsis and tetanus: A systematic review and delphi estimation of mortality effect. *BMC Public Health, 11 Suppl 3*, S11-2458-11-S3-S11.
- Hyder, A. A., Wali, S. A., & McGuckin, J. (2003). The burden of disease from neonatal mortality: A review of south asia and sub-saharan africa. *BJOG: An International Journal of Obstetrics and Gynaecology, 110*(10), 894-901.
- Lawn, J. E., Kerber, K., Enweronu-Laryea, C., & Cousens, S. (2010). 3.6 million neonatal deaths—what is progressing and what is not? *Seminars in Perinatology, 34*(6), 371-386.
- Lee, A. C., Cousens, S., Wall, S. N., Niermeyer, S., Darmstadt, G. L., Carlo, W. A., et al. (2011). Neonatal resuscitation and immediate newborn assessment and stimulation for the prevention of neonatal deaths: A systematic review, meta-analysis and delphi estimation of mortality effect. *BMC Public Health, 11 Suppl 3*, S12-2458-11-S3-S12.
- Moyer, C. A., Adanu, R. M., & Engmann, C. M. (2013). The relationship between facility-based delivery and maternal and neonatal mortality in sub-saharan africa. *International Journal of Gynecology & Obstetrics, 122*(3), 263-265.

Other Resources

Websites:

www.globalstrategies.org
www.pih.org

Books:

King Leopold's Ghost by Adam Hochschild
Mountains Beyond Mountains by Tracy Kidder
The Boy Who Harnessed the Wind by William Kamkwamba

Article:

Slow Ideas by Atwul Gawande:
http://www.newyorker.com/reporting/2013/07/29/130729fa_fact_gawande?currentPage=1

Video:

The Toughest Place to Be a Midwife:
<http://www.youtube.com/watch?v=VYQHMQFYsDM>