Leveling the Playing Field: Addressing Disparities in NICU Care
My professional training is in social work, social policy and childbirth education.

Work in perinatal education, research, writing, milk banking.

Mother of 4 adult children, two of whom were born into NICUs, on two continents.

Executive Director of Mothers’ Milk Bank Northeast.

Past president of Human Milk Banking Association of North America.
Unlevel playing fields / disparities are everywhere

Education
Health care
Income
Geography
Law enforcement
Opportunities
What are the elements of the MCH playing field?

1. Fertility
2. Pregnancy
3. Birth

1. Post Partum
2. Breastfeeding
3. Prematurity
4. Parenthood
Unlevel playing field 1
Factors of unlevel field 1

Race/racism
Income
Age of Mother
Access to care
Stress
Environmental toxins
High rates of obesity, diabetes, hypertension
Higher rates of prematurity and infant mortality
Leveling unlevel playing field 1
Factors to leveling playing field

Science/Medicine
- advances in prenatal care
- preventing / delaying prematurity
- lactation research / donor milk
- effects of environmental factors

Policy/law/regulation
- better access to more care
- geography, training
- paid parental leave
- quality, affordable day care
Who helps level playing field 1?

Legislators
Hospitals and hospital systems
State and federal programs
  WIC, ACA, Medicaid/insurance
  Unions / large corporations
Lobbyists / advocates
Professional orgs
  AMA, NACHC, USBC...
Education and training
Unlevel playing field 2
Factors of unlevel field 2

Complex pregnancy
Complex/difficult birth
Preterm birth
Distance from / transportation to hospital
Return to work
Language barrier
Maternal and/or infant complications
Breastfeeding difficulties
Family support / care for other children
Leveling unlevel playing field 2
Factors to leveling playing field 2

- Ongoing access to quality care
- Culturally / linguistically appropriate care
- Transportation
- Flexible workplaces
- Community support
- Family support
- Breastfeeding/human milk
- Kangaroo care
Who helps level playing field?

Health care providers
Health care agencies (hospitals / clinics)
Employers
Family members
Mayors/city councils/municipal services
Local NGOs (incl. chapters of larger orgs.)
Service orgs, inc. faith based
Universities (local research, interns)
What is preterm birth?

Babies born less than 37 weeks completed gestation

- late preterm: 32 - <37 weeks
- very preterm: 28 - <32 weeks
- extremely preterm: <28 weeks
Global prematurity snapshot

Every year\(^1\), 15 million babies are born prematurely, that's 29 babies a minute.
Global prematurity snapshot

The survival gap
Where you are born makes a big difference in your chances of surviving premature birth.

High-income countries: 10% die
Low-income countries: 90% die

CARE

More than 75% of deaths can be prevented even without intensive care.

Breathing
At 61 per 1,000 births, steroids help babies' lungs mature in the womb.

Warmth
Skin-to-skin holding and swaddling help babies stay warm.

Nutrition
Early and exclusive breastfeeding is best.

Protection
Sunflower oil protects babies' skin and prevents infections.

Hygiene
A clean environment helps reduce the risk of infections.

SOAP

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Global prematurity snapshot

Figure 2.4: Estimates rates of preterm birth in 2010

Preterm birth rate, year 2010

- <10%
- 10% - <15%
- 15% or more
- Data not available
- Not applicable

11 countries with preterm birth rates over 15% by rank:
1. Malawi
2. Congo
3. Comoros
4. Zimbabwe
5. Equatorial Guinea
6. Mozambique
7. Gabon
8. Pakistan
9. Indonesia
10. Mauritania
11. Botswana

US preterm birth grade - C - 9.9%
In United States, the preterm birth rate among black women is 49% higher than the rate among all other women.
What causes prematurity?

<table>
<thead>
<tr>
<th>Cause</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age/spacing</td>
<td>Teens/older moms, too close together</td>
</tr>
<tr>
<td>Multiples</td>
<td>Assisted reproduction</td>
</tr>
<tr>
<td>Infection</td>
<td>i.e. UTI, malaria, HIV, syphilis</td>
</tr>
<tr>
<td>Maternal</td>
<td>i.e. diabetes, hypertension, thyroid</td>
</tr>
<tr>
<td>Nutrition</td>
<td>Undernutrition, obesity, vit. deficiencies</td>
</tr>
<tr>
<td>Lifestyle</td>
<td>Smoking, alcohol, drugs, excess physical work</td>
</tr>
<tr>
<td>Psychological</td>
<td>Depression, violence</td>
</tr>
<tr>
<td>Genetic</td>
<td>Family hx, cervical incompetence</td>
</tr>
<tr>
<td>Provider</td>
<td>Medical induction, c/section</td>
</tr>
<tr>
<td>No cause IDed</td>
<td>50% of premature births</td>
</tr>
</tbody>
</table>
All body systems are affected

**Short Term**

- Respiratory
- Cardiovascular
- GI
- Immunologic
- CNS
- Hearing
- Vision

**Long Term**

- Motor
- Cognitive
- Behavioral
- Developmental
Space births (18 months between birth and next pregnancy).
Effective and accessible birth control (including full bfing).
Reduce teen and older pregnancies.
Accessible preconception, prenatal and intra partum care and ed.
Treat obesity, diabetes, hypertension etc.
Quit smoking.
Avoid alcohol and recreational drugs.
Reduce non medical inductions and c/sections before 39 weeks.

How can tools of playing fields 1 and 2 be used?
Treating prematurity

Prenatal care detect preterm labor early - 26 week -> 34 weeks
Hospital NICU care.
Family Integrated Care / Parents /families on NICU team.
Breastfeeding support / donor milk.
Kangaroo care by parents, family members, volunteers.

How can tools of playing fields 1 and 2 be used?
Playing Field 1 strategies

Improve surveillance and data collection, nationally and globally. Common definitions, methods and tools.

Research on causes, prevention, mitigation.

Partnerships between research and practice, multi center studies, sharing data, programs, best practices.

Federal policies and funding for MCH care that reflect and adapt to research findings.

Federal policies for related issues i.e. parental leave.
ID local/regional NGOs that can help. Be creative.

Hospital/system wide evaluation and update of policies.

Transportation support.

Partnerships among NICUs/hospitals and OP care.

Promote parental leave to consider premie birth.
What is kangaroo care?

Began in Colombia to avoid: overcrowding and cross infection, 1000 gram babies sent home w/Mom in pouches.

3 components:

*Position*: upright, S2S

*Nutrition*: nursing

*Discharge*: ASA bf established
Evidence for kangaroo care

2016 Chochrane review: reduced mortality, HAI, hypothermia; increased wt. gain, growth in length, breastfeeding

Other research: normalizes body temp, heart rate, increased wt. gain, fewer infections, less stress, improved cognitive and motor dev., reduced pain response
Guidelines for kangaroo care

*Initiation time*: minutes, hours from birth, ideally no separation

*Dose*: hours/day, ideally over 90%

*Monitoring*: Ongoing, as needed, ideally while S2S, teach parents to monitor.

*Planning/Training*: Training of NICU staff to use KC effectively.
Kangaroo care and the playing field

- Low tech
- Low cost
- Effective
- Universal culturally
- Requires protocols
- Requires staff training & buy-in
Breastfeeding Preterm Infants

Preterm babies often have trouble nursing: strength, nipple size.

Not all moms make sufficient milk when baby is very early.

Stress of NICU also inhibits milk production.

To address these problems, moms pump early and often.

Feeding is combination of: pumping, fortification, donor milk, enteral, cup, bottle.
Written policies for lactation management.

Communication among all providers (inc. parents).

Ongoing assessment of mom and infant.

Timely IP and OP bf support to address problems.

Minimize mom/baby separation.

Educate parents & staff re: unique challenges.

Specific discharge instructions and follow up.

Monitor and improve care through QI.

Guidelines for Breastfeeding Preterm Infants
Premie breastfeeding support policies

Universal access to:
- ongoing breastfeeding support;
- donor milk as needed;
- kangaroo care.

Parental leave policies for premie parents.

Hospital grade pumps for home use.

Coverage for transportation to hospital.
What is a milk bank?
Milk banks accept donations of milk from mothers who have more than their babies need, screen, pasteurize and dispense it primarily to hospitalized, fragile babies, whose mothers do not have enough milk.

What problems does it solve?
Insufficient supply of premie moms.

Formula fed infants are much more likely to have NEC, ROP, sepsis, longer LOS, higher morbidity and mortality.

Use of donor milk increases NICU BF rates.
HMBANA advances the field of non-profit milk banking through member accreditation, development of evidence-based best practices, and advocacy of breastfeeding and human lactation to ensure an ethically sourced and equitably distributed supply of donor human.

There are 27 accredited member milk banks and 6 milk banks in development.
Donor screening modeled after blood donor screening
  phone screen
  health form, consents, PCP sign
  off
  blood test

Milk shipped frozen, logged, kept frozen until processing.

Pasteurized using Holder method (62.5°C 30 minutes).

Each tray of milk tested for pathogens.

Shipped frozen to hospitals and out patients.
75% of NICUs in US use donor milk. However, safety net hospitals less likely to do so.

Those who use safety net hospitals have higher prematurity and infant mortality rates.

African American mothers less likely to breastfeed.

Hx of slavery, forced wet nursing.
Research: Why are safety hospitals less likely to use donor milk?

Legislation: Incentives for these hospitals to use donor milk. Insurance coverage?

WIC: Coverage of donor “bridge milk” to support breastfeeding.

First Food: The first food movement promotes breastfeeding and milk donation in communities of color.

Paid parental leave: including NICU time.
Community presence and awareness.

Access to milk cannot depend on birth hospital.

Linguistically and culturally appropriate bf support.

Access to milk OP cannot depend on income or zip code.

Opportunity to donate - to give back to your community.

Donor milk as breastfeeding support, not better supplement.
Helping local safety net hosp\'. overcome barriers.

Partnering with local orgs: BFC, WIC, Baby Café.

Insurance coverage for DM state by state.

Individual financial assistance for DM.

Local state parental leave laws.

Access through milk depots and distribution sites.
The MCH playing field needs much leveling and flattening.

Many tools, large and small, available and needed for leveling them.

Many people contributing to this work.

Requires planning, hard work, team effort,

Time, patience and impatience!
Even with the best science, the best policies, playing field 2 will never be fully level.

Not all the ruts and bumps are in our control.

Some babies will still be born premature, some babies will die, some babies will have LT health and developmental challenges.

Some mothers will still have insufficient milk.

Then, we hold hands, walk through the rutted field together and help tamp down the personal ruts and bumps the best we can.
Questions?

I look forward to hearing from you.

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