



#### HEALTHY MOTHERS, HEALTHY BABIES

Coalition of Georgia

#### **Annual Meeting & Conference**

Gwinnett Technical College October 4, 2016





HEALTHY MOTHERS, HEALTHY BABIES

Coalition of Georgia

Est. 1973



# 2016 State of the State of Maternal & Infant Health in Georgia

Where We Have Been, Where We Are Now, and What We Can Do

Healthy Mothers, Healthy Babies Annual Meeting October 4, 2016

MERRILEE GOBER, RN, BSN, JD HMHB BOARD MEMBER



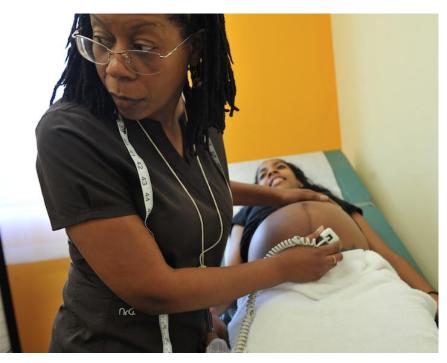
#### Data In This Presentation



•Data in this presentation is cited in the *State of the State* report. For your ease of review, most every data source is hyperlinked in the electronic version.

•The electronic version of the report is on the Healthy Mothers, Healthy Babies website: www.hmhbga.org

#### **Prenatal Care**



Source: EveryMotherCounts.org

- No prenatal care is associated with an increased risk of prematurity, LBW and fetal/infant/maternal death
- In GA, up through 2006 a combined measure of those who started PNC in the third trimester or got No PNC at all was publically reported on OASIS.
- Measure is no longer reported because of the high percentages of birth certificates not completed.
- GA's incomplete data put us 50<sup>th</sup> in the nation!
- Although not publically reported, GA DPH has provided the data for No Prenatal Care:

## "No Prenatal Care" Data



YEAR	" No Prenatal Care"	Birth Certificates Missing the PNC Data
2008	2,034	30.1%
2009	2,181	24.1%
2010	1,851	21.6%
2011	1,903	17.7%
2012	1,633	13.8%
2013	2,437	16.1%
2014	960	16.8%







Source: TAMBA.org

- Improve our data with more support to each hospital's "birth certificate lady"
- Value their work—it is truly important
- Assist them with the medical terminology on the forms
- Assist them with how to find the dates of PNC
- Work toward automatic population of the data requested from EMR records—build IT interfaces

#### **Obstetrical Services**

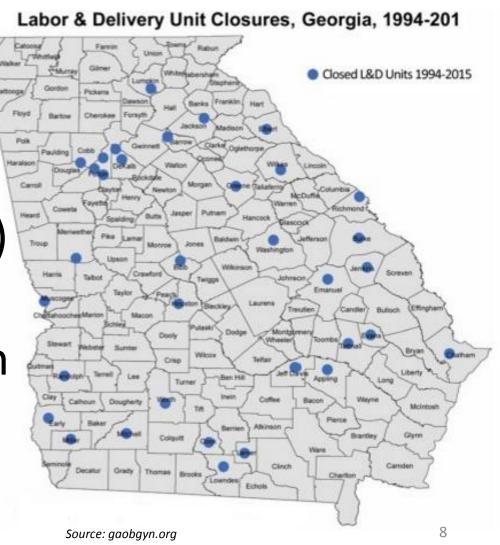


 Approx 50% of GA's counties do not have an OBGyn (on par with Nat'l average)

 31 GA L&D Units have closed over the last 21 years (19 in rural areas)

 GA has approx 77 hospitals delivering babies out of more than 180 hospitals

 46 of Georgia's 159 counties have an L&D unit



#### Recommendations



- Continue incremental increases in provider reimbursement rates
- Expand loan forgiveness programs for clinicians practicing in rural areas
- Market the new tax credits available to donors who donate to qualified healthcare systems
- •For women who do not qualify for Medicaid, consider Peachcare for Kids to cover PNC for those unborn babies who will qualify for Medicaid at birth

# Dental Care in Pregnancy

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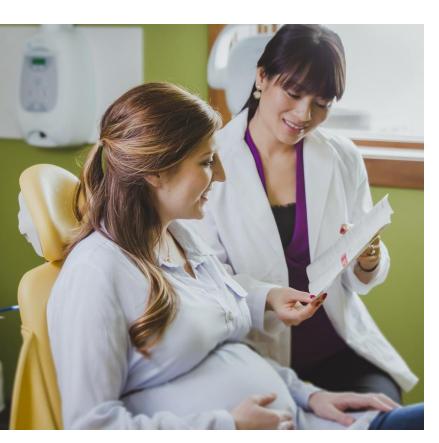
- Aetna study found preterm birth rate was 42% higher; LBW 33% higher for women with no dental care in pregnancy



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# Dental Care in Pregnancy





Source: Shutterstock

- ACOG recommends routine dental care in pregnancy (every 6 months)
- But most OBs are not providing the education
- Nat'l: 59% of women report no oral health counseling during pregnancy
- GA 2012 PRAMS: 38% got dental care
- GA 2013 PRAMS: 29.3% got dental care
- GA 2015 Medicaid/CMOs dental care:

### Recommendations



- Everyone who interacts with pregnant women should educate them on the importance of dental care
- "Dental care" should be added to the education/counseling section of the prenatal record so it is discussed with every patient @ the first visit
- CMOs and OB clinicians should tell patients that Medicaid covers dental care
- CMOs/Ins Cos can assist with referral or call PowerLine 1-800-300-9003 for dental referrals



### While preparing this document, I noted that in 2010 Georgia had a dip in its Infant Mortality Rate

- •It was so low—at 6.3-- that the State made a notation stating that it was likely underreported
- •GA's fetal mortality was low as well
- ·What, if anything, did we do differently in 2009 and 2010 in OB care that might have affected these numbers?

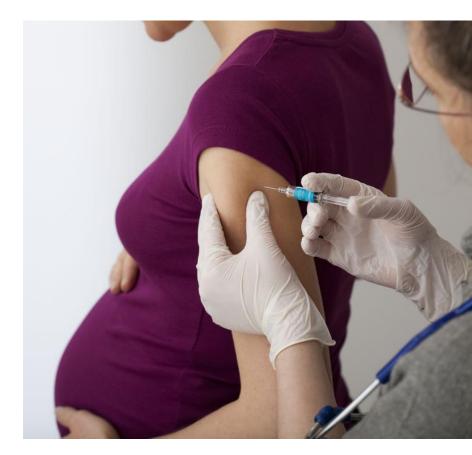
### The Global H1N1 Scare

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• OB practices in Georgia took extra measures to get their pregnant patients immunized.

Pregnant women getting flu shots in GA:

- 2005: 16.9%
- 2006: 15.5%
- 2009: 41.2%
- 2010: 45.4%
- 2011: 35.8%
- 2012: 24.4%
- 2013: 17.0%



Source: Shutterstock

# Comparing Georgia to Other States



- •In 2009-10: 29 states participated in PRAMS
- Of those 29 states, Georgia ranked 28<sup>th</sup> for its flu immunization rate of pregnant patients during the H1N1 Scare
- •GA was 41.2% in 2009 and 45.4% in 2010
- •The overall flu immunization average for the 29 states was 56.8% for the 2009-10 season

#### Influenza Risks

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- Risk of flu hospitalization for a healthy pregnant woman is 18 fold greater than for a healthy non-pregnant woman
- 1% of population is pregnant, but accounted for 5% of all flu related deaths in 2009
- Babies are less likely to die in utero, be preterm and are heavier if mother had flu vaccine while pregnant
- Stillbirths 51% less likely among those vaccinated vs unvaccinated mothers



#### Vaccinated Mothers Protect Babies

- Maternal vaccination 91.5% effective in preventing infants from flu hospitalization during first six months of life
- Infants of immunized mothers had risk reduction of 70% for lab confirmed influenza and a risk reduction of 81% for influenza hospitalization in their first six months of life
- Remember, a baby cannot have a flu shot until 6 months old, but s/he gets antibodies from maternal immunization (in utero & bf)





Source: Creative Commons

# **HUGE Opportunity for Improvement**



2014-15 CDC survey data shows:

50.5% pregnant women got vaccinated (GA @ 17%)

If the OB clinician offers the pregnant woman a flu shot she is 8 times more likely to get the vaccine compared to those who were not offered the vaccine or recommended the vaccine.

- If offered-- 67.9% are vaccinated
- If recommended, but not offered: 33.5%
- If not mentioned: 8.5% are vaccinated

#### Recommendations





Source: Shutterstock

- Pilot project increasing the fee to OB practices for the administration of the flu shot\*\*
- Do not wait until 3<sup>rd</sup> trimester to inoculate
- When no in-house administration, give mother written Rx to impress upon her the importance of getting the vaccine

# Fetal Mortality



- Tracked when the death occurs at or beyond 20 weeks
- •Nationally, there are usually more infant deaths than fetal deaths. But, the CDC indicates that for the first time, in 2013, there were more fetal deaths than there were infant deaths.
- However, Georgia data consistently shows more fetal deaths than infant deaths.

# Fetal Mortality Data



Nat'l rate fetal deaths/1,000 births (2013): 5.96

Georgia's 2014 rate: 7.8 (1,023)

- Black 12.2
- White 5.0
- Hispanic 5.7
- Rural mothers 7.0
- Non-Rural mothers 7.9



Source: Pexel

# Georgia Birth Data

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- In 2014, Georgia had 130,776 live births
- 33.8% were C-Sections (nat'l ave 32.2%)
- 15.5% were born to rural mothers
- 662 were home births
- Teen birth rate declined to 28.3/1,000 (while nat'l ave was 24.2/1,000)
- 45% babies were born to unmarried mothers (nat'l ave was 40%)
- In 2010, 60% pregnancies were unintended (nat'l ave was 45% in 2011)



Source: Creative Commons

# **Smoking During Pregnancy**



- 90% of all smokers begin smoking as a teen
- Maternal Smoking is associated with increase risk of:
  - placental abruption
  - LBW babies
  - SGA babies
  - nonsyndromic heart defects
  - oral clefts



Source: Shutterstock

# **Smoking During Pregnancy**



 Birth certificates indicate that about 6% of GA mothers are smoking in pregnancy (7,500+)

2011 PRAMS in 24 states: 10% average

Ohio: 8.6% admitted--- but 16.5% actually smoked per urine

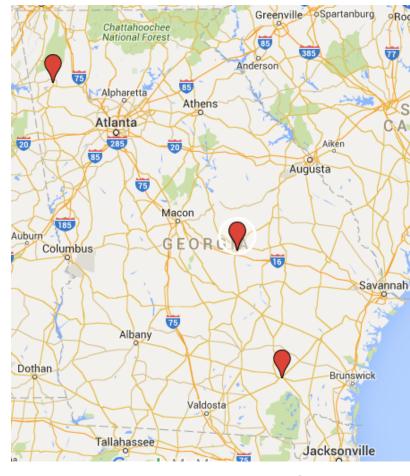
• GA '09-'12 PRAMS maternal smoking by race:

10.3% White

3.7% Black

0.9% Hispanic

 Rome, Waycross and Dublin GA areas have the highest rates of maternal smokers



#### Recommendations



- Insurance Cos and CMOs offer case management to all pregnant women who smoke.
  - GA Quit Line: 1-877-270-STOP
- Increase the tobacco tax to deter teen smoking--GA 49<sup>th</sup> in country--or increase age to buy tobacco to 21 years old



Source: Kaiser Health News

#### **Premature Births**

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- Beginning with 2014 birth data, the OB estimate of gestation on the birth certificate is now being used to calculate prematurity instead of the previous estimate using the LMP. This is a national change and is lowering prematurity rates by about 2% here in Georgia.
- DPH recalculated GA data going back to 2008 for comparison purposes.



Source: Creative Commons

# **Prematurity Data**

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- 2014 GA: 10.8% (Nat'l ave 9.57%)
- GA was at 11.9% in 2008
- GA currently ranks 38<sup>th</sup> (perhaps 43<sup>rd</sup>)
- Mothers <25 or >34 years old have higher rates of premature babies
- Rural mothers delivered 16.7% of the premature babies (but had 15.5% of GA's births)



Source: Creative Commons

# Low Birthweight Babies

- Babies weighing less than 2500gms/5.51 pds
- 2014 GA: 9.5% (nat'l ave 8.0%)
- GA was 9.0% in 2003
- GA currently ranks 47<sup>th</sup>
- Mothers <25 and >34 years old have higher rates of LBW babies
- 10% of rural babies were LBW
- Rural mothers delivered 15.5% of the LBW babies in GA (and had 15.5% of GA's births)





Source: Creative Common

# Medicaid-CMO LBW Data Better than the State Average



LBW Babies for GA CMOs	2010	2011	2012	2013	2014
Amerigroup	7.81%	7.00%	8.45%	8.84%	8.87%
Peach State	7.45%	7.00%	8.53%	8.73%	9.04%
WellCare	7.53%	7.70%	8.02%	8.32%	9.21%
GA overall %	9.8%	9.4%	9.4%	9.5%	9.5%

# Costs \$27,000 per pound to raise a baby to normal weight



# Recommendations

- Dental care for all pregnant women
- •Flu shots for all pregnant women
- •Consider group prenatal care, especially for those with high-risk demographics
- Prenatal depression screening and treatment
- Offer LARCs & P4HB after delivery

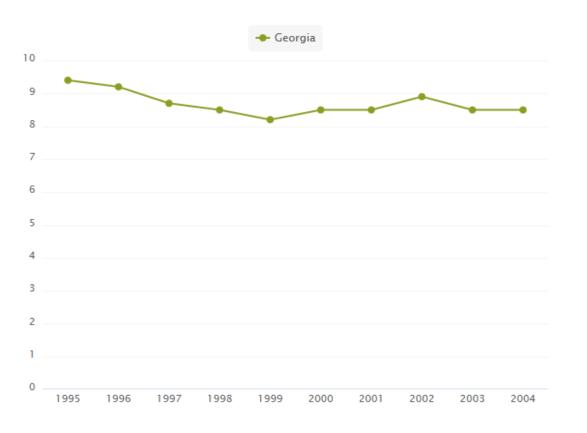
# **Infant Mortality**

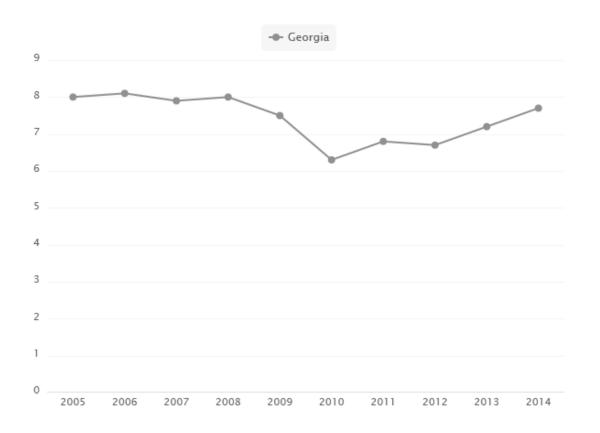


- •In 2014 death rate was 7.7/1,000 live births (nat'l ave was 5.82 a historic low!)
- •In 2014 Georgia ranked 45<sup>th</sup>
- •In 1990 GA ranked 50<sup>th</sup> but in 2010 (with flu vaccines) GA ranked 26<sup>th</sup>
- Medical conditions account for most deaths
- •VLBW ~ 2% of births, but 50% infant deaths
- •Infant Mortality Rate (per 1,000) by race: Black: 13.3 White: 5.5 Hispanic: 4.9

# Infant Mortality: Georgia (1995-2014)







#### INFANT MORTALITY (PER 1,000) (RATE PER 1,000)

**Georgia Family Connection Partnership**KIDS COUNT Data Center, datacenter.kidscount.org
A project of the Annie E. Casey Foundation

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# Sleep Related Infant Deaths



- Of the 1,004 infant deaths in 2014, 158 were sleep related.
- 96 unexplainable deaths, but had one or more risk factors in the setting
- 52 suffocation deaths
- 8 sleep related medical deaths

31 caregivers had hx of substance abuse 11 under the influence at time of death 52 had prenatal maternal tobacco exposure 95 in an adult bed; 33 in a crib/bassinette

## Recommendations



- Dental care & flu shot (as well as Tdap) for all women pregnant women
- Educate families on importance of infant vaccinations
- Encourage breastfeeding because of the immunities passed in mother's milk and the 36% 

  in the risk of SIDS
- Educate families on AAP's safe sleep guidelines (revised guidelines are expected in late 2016)



Source: Creative Commons

#### Maternal Disease



- Maternal HTN (incl preeclampsia) and diabetes increase risk to both mother and baby
- Women with hx preeclampsia have two fold increase risk of heart disease, stroke or thromboembolic event in the 5-15 years following pregnancy
- GA PRAMS data by race for HTN in pregnancy Black 15.1% White 15% Hispanic 6.8%

# Maternal Obesity • BMI ≥25 is overweight

- BMI ≥30 is obese
- BMI ≥40 is severe obesity
- Recent CDC national data:

40.4% of women are obese

Ave woman now 5'4" & 168 lbs 16 lbs more than ~ 20 years ago

 Nearly 50% GA women are entering pregnancy overweight or obese





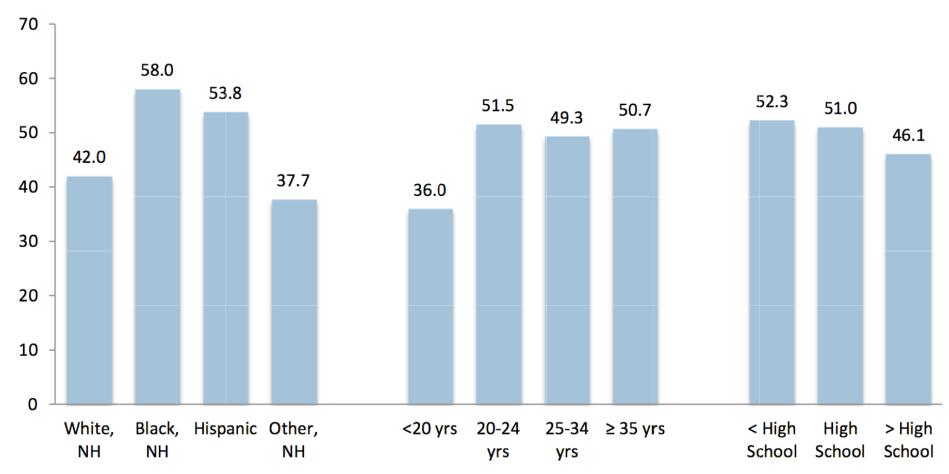
Source: Creative Commons

## Starting Pregnancy Overweight



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Percent of women entering pregnancy overweight or obese by race/ethnicity, maternal age and education level, Georgia 2009 to 2011



Source: PRAMS 2009-2011

#### Recommendations



- Consults with Dieticians, Perinatologists and Cardiologists
- Women in need of Cardiology Consults:

**Personal Hx**: pre-pregnancy Type 2 diabetes mellitus, hypertension, morbid obesity (BMI>40), cardiac disease, repaired heart defect, arrhythmia, stroke, TIA, or heart is "poor functional class"

**Family Hx**: heart failure, sudden death, hypertrophic cardiomyopathy, arrhythmogenic right ventricular dysplasia, or long QT syndrome

#### Maternal Use of Alcohol & Illicit Drugs



- In 2011 6.2% women reported alcohol intake in the last 3 months of pregnancy (nat'l ave 7.5%)
   GA below the nat'l average
- In 2012 NAS 3.1/1,000 (nat'l ave 8.2) CDC has 2013 ave of 28 states at 6.0 GA below the nat'l average
- 1/1/16 NAS became reportable to GA DPH for surveillance purposes\*



Source: Creative Commons

## Maternal Mortality



Maternal Mortality Data is captured by various organizations, but they do NOT all use the same measurement.

- Some collect data of pregnancy-related deaths while pregnant or within 42 days of pregnancy
- Others collect data of pregnancy-related deaths while pregnant or within one year of pregnancy

## Georgia Maternal Mortality Ranking





Source: Julien Ducenne, Creative Commons

- A 2010 Report (using 2006 data) published by Amnesty International ranked Georgia 50<sup>th</sup> in the nation
- The National Women's Law Center (using data from 2001-2006) now ranks GA 49<sup>th</sup> with Michigan buffering the bottom
- Neither indicates which data measurement they are using (42 days vs. one year)

## Maternal Mortality



- Pregnancy Related Death is reported as a ratio: per 100,000 pregnancies
- With states transitioning their methods of data collecting, the CDC has indicated that data may not be accurate or comparable year-to-year. With that caveat, the most recent comparative data shows:
- 2014 within 42 days: GA: 68.8 Nat'l: 23.8
- 2012 within one year: GA: 19.98 Nat'l: 15.9

## Georgia Maternal Mortality Data



Georgia data is publically available from two sources on the GA DPH website

 OASIS: provides data based on specific diagnosis codes on death certificates--- death within 42 days of pregnancy

 Maternal Mortality Review Committee Report: provides data based on chart reviews--- death within one year of pregnancy

## Georgia Maternal Mortality Review Committee

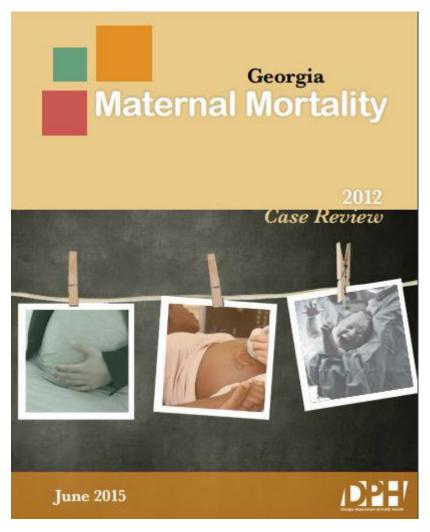


- Started in 2013. Led by Dr. Michael Lindsay with the GA-DPH, the OBGyn Society and the CDC. Looking at deaths w/in one year
- Approx 25 members— many backgrounds- OB, Peds, Perinatologists, CNM, nurses, anesthesiologists, cardiologists, epidemiologists...
- Review all records obtainable including charts, police reports, EMT reports, autopsy reports, death certificates, birth certificates. Typically NO interviews of medical persons or family

### MMRC Report on 2012 GA Deaths

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- Amended report shows 26 Pregnancy-Related Deaths
- 8 hemorrhage (2 ectopic)
- 4 hypertension
- 4 cardiac
- 4 thromboembolism
- 3 pre-existing seizure disorder
- 1 suicide (suicides and OD > 6 months were not reviewed)
- 2 other



#### Data Details of 2012 Cases....

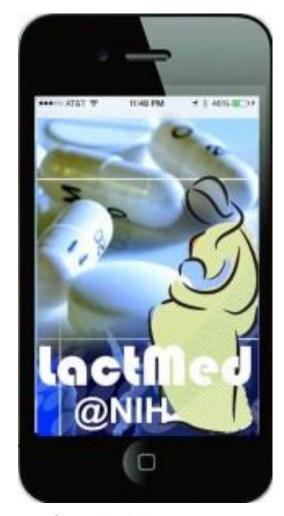


- Many were missing measurements needed to calculate BMI (need height recorded!)
- 21 of the 26 died within 42 days of pregnancy
- Race/Ethnicity of the 26:
  - 18 Black (69%)
  - 6 White (23%)
  - 1 Hispanic (4%)
  - 1 Unknown (4%)

#### Recommendations

3

- Encourage all prenatal clinicians to measure and record height in prenatal record
- Be aggressive with HTN
- Be aggressive with blood loss; it may be more than you think
- Be aggressive with DVT prophylaxis
- Even if after delivery, refer at-risk mothers to cardiologist
- Seizure meds need to stay at therapeutic levels
- Use Medications & Mother's Milk and LactMed App –share with all breastfeeding mothers



#### Recommendations

3

- Review hospital discharge instructions for completeness...do they have...
   Signs and Symptoms for Urgent Care:
  - HTN
  - Blood Loss
  - DVT & PE
  - Depression
  - Heart



Source: Creative Commons

### Postpartum Visits



#### Disparities exist when looking at sources of payment

- 2014 DCH data for the Medicaid CMOs shows 62-70% of mothers return for the pp visit
- 2011 PRAMS data for all payer types shows 92% of mothers return for the pp visit



Source: WebMD.com

#### Perinatal Mood Disorders

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- Depression affects approx 10-15% of mothers
- In GA, teen mothers are most at-risk for depression
- Untreated depression during pregnancy is associated with a 27% increased risk of preterm delivery compared to those whose depression was treated
- MMRC determined that in 2012 GA had 1 pregnancy-related suicide and 9 pregnancy-associated suicides (suicides after 6 mos were not reviewed—assumed not "pregnancy-related")
- ACOG reminds us that deaths due to suicide exceed hemorrhage and hypertensive disorders



Source: Monarch-Healthcare.net

#### Recommendations



- Medicaid/CMOs: Consider extra fee to OB practices for pp visit (as Peach State has done) and consider depression screening for that extra fee.
- Expand telemedicine options with medical professionals who specialize in the clinical management of depression and anxiety issues affecting pregnant and postpartum women—then market the services to OB clinicians and patients
- www.postpartumprogress.org

## Childhood Illness and Disease Risk Reduction Associated with Breastfeeding



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Sudden Infant Death Syndrome	36%
Otitis Media (Ear Infections)	50%
Upper Respiratory Infections	63%
Lower Respiratory Infections	72%
RSV Bronchiolitis	74%
Asthma with family hx / without family hx	40% / 26%
Atopic Dermatitis	42%
Gastrointestinal Infections	64%
Gluten Intolerance (Celiac Disease)	52%
Type 1 Diabetes / Type 2 Diabetes	30% / 40%

**Obesity (4% reduction for ea mo breastfed)** 



Source: Creative Commons

24%

## Mother's Milk Helps Preemies





Source: Daniel Lobos, Creative Commons

- It lowers their risk of retinopathy of prematurity
- Risk of necrotizing enterocolitis is reduced by 77%
- Fewer hospital readmissions in the first year
- IQs are higher and white matter and total brain volumes are greater as these children age

# Maternal Disease Risk Reduction from Breastfeeding



Diabetes	12%
Breast Cancer	4.3%
Ovarian Cancer	21%
Metabolic Syndrome	8.4%
Coronary Artery Disease	23%
Aortic Calcifications	22%
Coronary Calcifications	15%



Source: Creative Commons

## Other Breastfeeding Benefits



- Associated with a reduction in the risk of crowed or misalignment teeth—thus reducing the need for orthodontics later in life.
- Associated with  $\Psi$  risk of postpartum depression.
- Associated with a reduction in the risk of maternal neglect and maltreatment--- A 15-year prospective Australian study of almost 6,000 children found: "Nearly a fourfold increase in the odds of maternal neglect for nonbreastfed children, compared with children who were breastfed for ≥ 4 months."

#### BREASTFEEDING COST SAVINGS



• If 90% of families complied with AAP recommendations, it is estimated that the US would save \$13 billion each year and we would save more than 900 lives annually (nearly all infants).

 Healthy born babies who are breastfed for the first 3 months of life save at least \$750 each in health care costs over their first year of life.

## Georgia Breastfeeding Data



#### **Initiation Rates**

 About 69% of Georgia's moms initiate breastfeeding



#### **Duration Rates**

 But, only about 25% of Georgia's infants are exclusively breastfed at 6 months



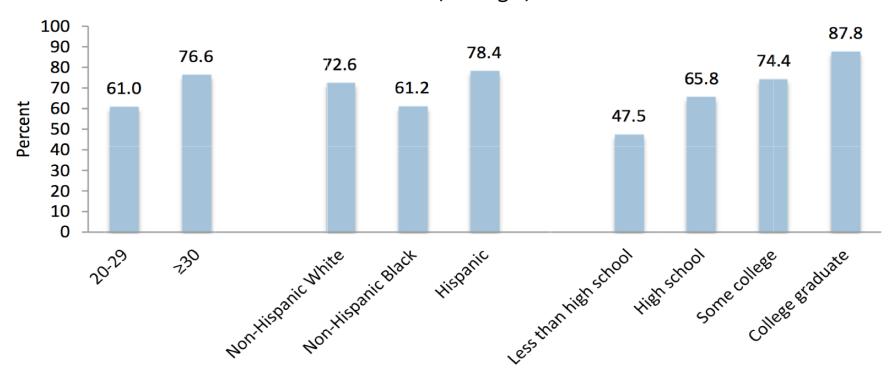
## Breastfeeding at Hospital Discharge



2012: Private Insurance 82.05%

2012: Medicaid 58.37%

Percent of infants who were ever breastfed by maternal age, race/ethnicity and education, Georgia, 2011



# 68% of Mothers Do Not Meet Their Personal Breastfeeding Goals



The top three reasons for weaning as cited by GA's moms are:

- Perception of Limited Milk Supply
- "My Milk Did Not Satisfy My Infant"
- Difficulty Nursing

Every day 185 mothers in Georgia give up breastfeeding and switch their babies to formula.

Formula companies take in \$4 billion US dollars annually

#### Recommendations



- More Prenatal Breastfeeding education
- More Baby-Friendly Hospitals (GA now has 5)
- Provide list of BF resources at hospital discharge (support groups and clinical help)
- •All payers reimburse for the clinical services of licensed IBCLCs (Follow Kaiser & Aetna)

#### Conclusion



- Make a personal commitment to work on at least two recommendations.
- Tell HMHB your initiative so it can be posted on our website and circulated in our monthly newsletter
- Pass your report copy to another after your review; keep it moving; —do not let it get dusty!
- Do you have a Recommendation that is not in the SOS?
   Contact us

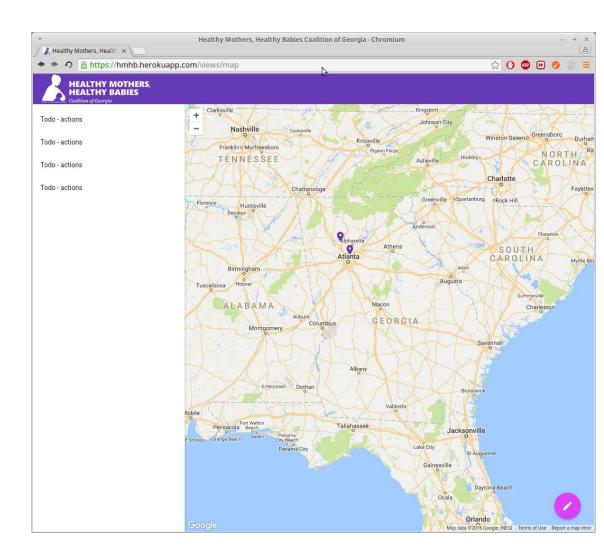
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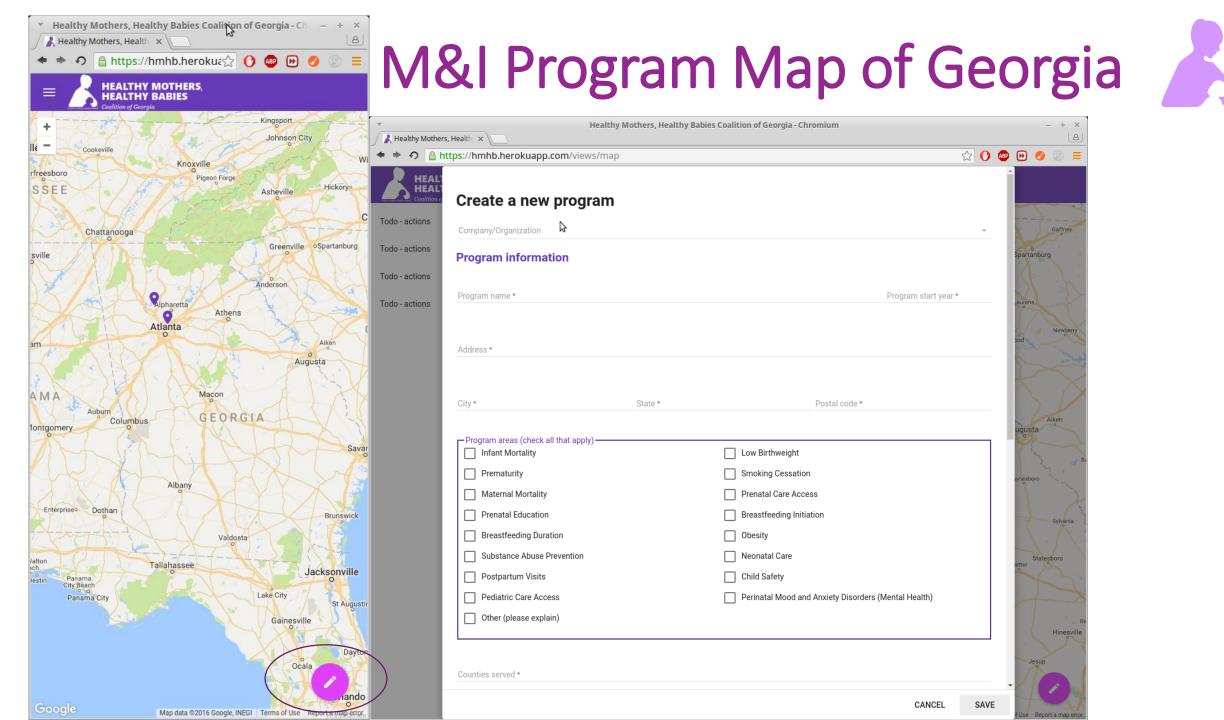
## M&I Program Map of Georgia

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#### **GOALS:**

- Show current efforts across the State to address: infant mortality, breastfeeding duration, obesity, perinatal anxiety and mood disorders, etc.
- Demonstrate where there are geographic gaps in efforts
- Help advocates better understand existing programs, goals and outcomes/increase partnerships







## QUESTIONS? COMMENTS?

FULL REPORT AVAILABLE
ONLINE AT: WWW.HMHBGA.ORG

