

## **National Quality Forum Public Comment from Dr. Gustavo San Román regarding measure #0471: PC 02 Cesarean Birth given on May 3, 2016.**

It is committees like this one that are given the responsibility to provide guidance for other stake holders that perhaps are not as skilled at math or science. Unfortunately, without scientific guidance, other stake holders may move forward with plans that lack math or science as is now evident in section 5.03 of the new 2017 contract for Covered California. The new contract states that contractors must exclude hospitals from their provider networks if the hospital is unable to achieve an unadjusted NTSV C-section rate below 23.9%.

Twenty years of science and math confirm the importance of risk adjusting the NTSV cesarean birth rate if that rate is to be used as a cesarean birth measure and until this year measure #0471 has had a risk adjustment for age. Just to be clear, this committee has just endorsed the removal of the risk adjustment from that measure based on only one graph with data only from California that claims that the risk of age is completely cancelled out by BMI. I am dumbfounded that anyone can come to the conclusion that age and BMI completely cancel each other out based on one graph and one published study when the published study doesn't even include BMI as a risk factor.

Extensive prior research has shown that the NTSV cesarean birth rate increases with increasing age within a hospital. Since age and BMI do not cancel each other out within a hospital, in order to claim that age and BMI cancel each other out when comparing hospitals, somehow every hospital across the nation must attract the exact combination of NTSV patients where the risk due to age and the risk due to BMI completely cancel each other while still maintaining a rate that increases with age. Math and science do not support the claim that age and BMI cancel each other out.

Every hospital across the country with older NTSV patients will be adversely affected by a cesarean birth measure that does not have any risk adjustment for age. This adverse effect will soon become evident to hospitals in California. More concerning is that hospitals with unadjusted NTSV cesarean birth rates of over 23.9% will not be able to justify their higher rate by claiming that they have higher risk patients. This is because according to the Joint Commission, a risk adjusted model which included age, BMI, race, hypertension and diabetes found differences limited to only 1-2%. Or in other words, all hospitals should be able to achieve an unadjusted NTSV cesarean birth rate within 1-2% of the average regardless of their patient population.

Six years ago I was the only one who recognized the flaw in the risk adjustment for measure #0471 and today I am the only one who recognizes the disaster that is coming with an unadjusted NTSV rate.

To fully understand the disaster that is coming to California one only needs to look back to 1997. That was the year with the lowest recorded national unadjusted NTSV cesarean birth rate and that year saw an overall cesarean birth rate of 20.8%. The data from 1997 reveal that in 1997 if a hospital had NTSV patients with an average age of 34 they would have had an unadjusted NTSV cesarean birth rate of about 27%. This means that if a hospital in California that has 34 year old NTSV patients currently achieves a rate as good as the best year on record, they will still be excluded from the Covered California provider network. God help those hospitals in California and God help us all if this committee doesn't check the math because a flawed cesarean birth measure is worse than having no measure at all. Thank you.

**DOCUMENTATION: How can the Joint Commission reach the conclusion that “Age and BMI cancel each other out in the risk adjusted models in these studies” when the only published study that is referenced DOES NOT EVEN HAVE BMI AS A RISK FACTOR? (See Methods)**

**Hospital differences in cesarean deliveries in Massachusetts (US) 2004-2006: the case against case-mix artifact.**

Cáceres IA<sup>1</sup>, Arcaya M, Declercq E, Belanoff CM, Janakiraman V, Cohen B, Ecker J, Smith LA, Subramanian SV.

**OBJECTIVE:**

We examined the extent to which differences in hospital-level cesarean delivery rates in Massachusetts were attributable to hospital-level, rather than maternal, characteristics.

**METHODS:**

Birth certificate and maternal in-patient hospital discharge records for 2004-06 in Massachusetts were linked. The study population was nulliparous, term, singleton, and vertex births (NTSV) (n=80,371) in 49 hospitals. Covariates included mother’s age, race/ethnicity, education, infant birth weight, gestational age, labor induction (yes/no), hospital shift at time of birth, and preexisting health conditions. We estimated multilevel logistic regression models to assess the likelihood of a cesarean delivery.

**RESULTS:**

Overall, among women with NTSV births, 26.5% births were cesarean, with a range of 14% to 38.3% across hospitals. In unadjusted models, the between-hospital variance was 0.103 (SE 0.022); adjusting for demographic, socioeconomic and preexisting medical conditions did not reduce any hospital-level variation 0.108 (SE 0.023).

**CONCLUSION:**

Even after adjusting for both socio-demographic and clinical factors, the chance of a cesarean delivery for NTSV pregnancies varied according to hospital, suggesting the importance of hospital practices and culture in determining a hospital's cesarean rate.

PLoS One. 2013;8(3):e57817. doi: 10.1371/journal.pone.0057817. Epub 2013 Mar 18.

**National Vital Statistics Reports, Vol. 64, No. 12, December 23, 2015 p9.**

	2014	2013
Age of mother		
ALL	26.0	26.8
Under 20	17.4	18.2
20–24	22.6	23.5
25–29	25.9	27.0
30–34	30.4	31.7
35–39	39.4	40.9
40 and over	52.7	53.5

**Since age and BMI do not cancel each other out within a hospital or across the country, in order to claim that age and BMI cancel each other out between hospitals requires that somehow every hospital across the country must attract the exact combination of NTSV patients where the risk due to age and the risk due to BMI completely cancel each other out while still having a rate within the hospital and across the country that increases with age.**

**The claim that “BMI cancels out age” is unfounded in the literature as is evident by the fact that the only reference given to support this claim doesn’t even have BMI as a risk factor.**

Table C. Low-risk cesarean delivery [NTSV], by age of mother

**The use of an unadjusted NTSV cesarean birth rate as a cesarean birth measure has the ability to significantly harm hospitals in California that have older NTSV patients as a result of the new contract for Covered California section 5.03. In addition, hospitals with rates over 23.9% will not be able to claim that their rate is due to high risk patients because according to the Joint Commission “in recent studies a full risk adjusted model (age, BMI, race, HTN, diabetes) only found differences limited to 1-2%.” These hospitals may be forced to close their labor units in order to maintain participation.**

**COVERED CALIFORNIA 2017 INDIVIDUAL MARKET QHP CONTRACT, FINAL REC. DRAFT – MARCH 4, 2016:**

**5.03 Appropriate Use of C-Sections:**

Covered California expects Contractor to only contract with hospitals that demonstrate they provide quality care and promote the safety of Enrollees. Beginning with the application for certification for 2019, Contractors must either exclude hospitals from networks serving Enrollees that are unable to achieve an NTSV C-section rate below 23.9 per cent from provider networks or to document each year in its application for certification the rationale for continued contracting with each hospital that has an NTSV C-Section rate above 23.9% and efforts the hospital is undertaking to improve its performance.