

**Table 1. Pre-existing Conditions Associated with Increased Risks to Mother and Fetus**

**ASTHMA**

- Pregnant women with asthma have higher morbidity and mortality than those who do not.<sup>1</sup>
- This effect is heightened for women of black vs white race.<sup>2,3</sup>
- Treatment: no effect on pregnancy outcome of the use of inhaled corticosteroids.<sup>4,5</sup>The use of oral corticosteroids has been associated with preterm delivery.<sup>6</sup>

**SICKLE CELL DISEASE (SCD)**

- SCD is associated with elevated maternal and fetal morbidity and mortality.
- There is acute risk of increased sickling, sludging, and ischemia in the placenta, the pulmonary bed (producing acute chest syndrome), and other tissues.
- Infection, always a risk in SCD, is more threatening during pregnancy.
- Pregnant teenagers with SCD are at high risk for spontaneous abortion, intrauterine growth retardation, in-utero fetal demise, preterm delivery, and placental thrombosis.<sup>7</sup>

**SMOKING**

- Pregnant female smokers are at increased risk for ectopic pregnancy, premature abortions, premature delivery, in-utero growth retardation,<sup>8,9</sup> and thromboembolic events.<sup>10</sup>
- Infant mortality is 40% higher than in age-matched controls, a risk that increases in a dose-dependent fashion with amount of cigarettes smoked.<sup>11</sup>

**OTHER CONDITIONS**

- *Epilepsy* — Use of anti-epileptic drugs can affect fetal health.
- *Cardiac disease* — Most (76%) pregnant women with underlying cardiac disease of varying kinds<sup>12</sup> experience no cardiovascular complications during pregnancy. The most common complications experienced are congestive heart failure, arrhythmias, thromboembolism, angina, hypoxemia, and bacterial endocarditis.
- *Dental health* — Maternal periodontitis is a risk factor for preterm labor, with relative risks as high as 3.9 compared with women who have healthy gums. Elevated levels of inflammatory mediators in blood and periodontal fluid may be causally related.<sup>13</sup>
- *Mental health* — A variety of mental health problems are exacerbated during pregnancy, including depression, anxiety, and self-injurious and suicidal behaviors.<sup>14,15-17</sup>

<sup>1</sup> Kwon HL, et al. *Ann Epidemiol* 2003 May; 13(5):317-24.

<sup>2</sup> Carroll KN, et al. *Obstet Gynecol* 2005 July;106(1):66-72.

<sup>3</sup> Chung KD, et al. *J Natl Med Assoc* 2004 November;96(11):1414-21.

<sup>4</sup> Martel MJ, et al. *BMJ* 2005;330(7485): 230.

<sup>5</sup> Namazy J, et al. *J Allergy Clin Immunol* 2004 March;113(3):427-32.

<sup>6</sup> Leborgne-Samuel Y, et al. *Rev Prat* 2004 September 30;54(914):1578-82.

<sup>7</sup> Schatz M, et al. *J Allergy Clin Immunol* 2004 June;113(6):1040-5.

<sup>8</sup> Habib P. *J Gynecol Obstet Biol Reprod (Paris)* 2005 April;34 Spec No 1:3S353-69.:3S353-69.

<sup>9</sup> Hammoud AO, et al. *Am J Obstet Gynecol* 2005 June;192(6):1856-62.

<sup>10</sup> Tosetto A, et al. *J Thromb Haemost* 2003 August;1(8):1724-9.

<sup>11</sup> Salihi HM, et al. *Matern Child Health J* 2003;7(4):219-27.

<sup>12</sup> Avila WS, et al. *Clin Cardiol* 2003 March;26(3):135-42.

<sup>13</sup> Freitas GV, et al. *Rev Assoc Med Bras* 2002 July;48(3):245-9.

<sup>14</sup> Konopka T, et al. *Bull Group Int Rech Sci Stomatol Odontol* 2003 January;45(1):18-28.

<sup>15</sup> Campagne DM. *Eur J Obstet Gynecol Reprod Biol* 2004 October 15;116(2):125-30.

<sup>16</sup> Carter FA, et al. *J Psychosom Res* 2003 October;55(4):357-61.

<sup>17</sup> Chander G, et al. *Obstet Gynecol Clin North Am* 2003 September;30(3):469-81.