



NCFH

National Center for Farmworker Health, Inc.



MATERNAL & CHILD HEALTH FACT SHEET

More than four million children are born in the United States each year. Many of the high costs associated with poor pregnancy outcomes are preventable and unnecessary. Due to mobility, the pregnant farmworker woman and infant child face great obstacles in obtaining adequate and timely prenatal and postnatal care. Likewise, once born, the health of farmworker children is one of the poorest of any group in the country and is a major concern within the migrant health field. The migratory lifestyle, language barriers, poor living conditions, and a lack of sufficient financial resources or health insurance make access to healthcare and the continuity of care incredibly difficult.

General Information

- In an average week, more than 79,584 children are born in the United States.¹ In 2004, one in every eight children, or more than half a million, are born preterm.² The percentage of children born with low birth weight (less than 5 pounds 8 ounces) was 8.1 percent, a 16 percent increase from 1990.³ During this same time period, births increased for Hispanic women, were essentially unchanged for non-Hispanic black women, and declined for non-Hispanic white women.^{3a}
- 3.6 percent of all live births, or 1 in 28 infants, are born to mothers who started prenatal care in the third trimester or who received no prenatal care at all.^{3b} One in every three babies born in the U.S. each year has a birth defect, the leading cause of infant deaths.⁴ In an average week, 536 babies in the United States die before reaching their first birthday.⁵
- Births among unmarried women reached a record high in 2004, with 35.7 percent of all U.S. births to unmarried women.⁶ According to the Population Reference Bureau, the United States has a birth rate of 14 births per 1,000 people and a 2.1 fertility rate. Fertility rate is the average number of children born to a woman during her lifetime.⁷ In comparison, Mexico has a fertility rate of 2.37, Guatemala 3.59, Columbia 2.49, while Canada has a fertility rate of 1.57, Germany 1.41, and France 1.98.^{7a}
- The U.S. infant mortality rate during 2008 was 6.6 deaths per 1,000 live births.⁸ Though the U.S. has the largest and most technologically powerful economy in the world, with a per capita GDP of \$46,000,⁹ its infant mortality rate is higher than significantly poorer countries such as Cuba (5.93 deaths per 1,000 live births) and Ireland (5.14 deaths per 1,000 live births).¹⁰ The 2005 mortality rate for children aged 1 to 4-years-old was 4, 756 total deaths or 29.4 deaths per 100,000 children. The leading causes of death were unintentional injuries followed by congenital malformations.¹¹
- Women in the U.S. have a 1 in 4,800 chance of dying from pregnancy or childbirth during their lifetime.¹² In 2004, 440 women in the U.S. died from maternal causes.¹³
- In 2005, Latinas had the highest birth and fertility rates in the U.S.¹⁴
 - 23.1 live births per 1,000 Latina women, compared with 12.4 for non-Latino women¹⁵
 - 99.4 births per 1,000 Latina women aged 15 to 44 years, compared to 60.4 for non-Latino women¹⁶
 - Women of Mexican origin had the highest fertility rate of all populations, with 107.7 births per 1,000 women aged 15 to 44 years.¹⁷

- In 2005, for mothers of Mexican origin, 5.53 out of every 1,000 infants less than one-year-old died, an increase from the year 2000 (5.43).¹⁸
- Balanced and complete nutrition is essential for both maternal and infant health. Excessive and inadequate intake of certain vitamins and minerals can hurt the mother and the growing fetus. Inadequate intake of folate or folic acid, a B vitamin, can lead to major birth defects such as neural tube defects. Pregnant women are advised to take 400 micrograms each day.¹⁹ Likewise, in-take of vitamins A and D in the early stages of pregnancy have been linked to malformations in babies.^{19a} Though multi/prenatal vitamins can ensure sufficient nutrient intake, a 2004 study found only a 35.1 percent prevalence of multivitamin use among pregnant women, with the highest prevalence among white women with private health insurance.²⁰ Poor nutrition can cause not only birth defects but also mental retardation, and it also increases the risk for heart disease, diabetes and high blood pressure later in the baby's life.^{20a}
- According to the CDC, "an estimated 700,000 children aged 1-2 years are iron deficient, putting them at increased risk of developmental delays and impaired cognitive ability." The CDC found the prevalence of anemia in pregnant women to be 10.2 percent, with Hispanic women having the second highest rate.²¹
- In 2008, more than 47 million Americans did not have health insurance.²² 32.8 percent of Hispanics in the United States are uninsured, while 19.6 percent of African Americans and 14.5 percent of whites were without health insurance.²³ 8.1 million children under the age of 18 in the U.S. were uninsured in 2007.²⁴
- Nearly one in five women of childbearing age in the United States did not have health insurance in 2006. This rate of 20.4 percent showed no improvement from the previous year and was higher than the 17.8 percent rate for all Americans less than 65-years-old.²⁵ With an uninsured rate of 39 percent, Latina women ages 15 to 44 were three times more likely to be uninsured than non-Latina white women at 14 percent.²⁶

Farmworker Data

- An estimated 3.5 million migrant and seasonal farmworkers live and work in the United States²⁷, 20 percent are women.²⁸
- 51 percent of migrant and seasonal farmworkers are parents. Farmworker parents have an average of two children less than 18-years-old. Of these farmworker parents, 66 percent are accompanied by their families, and women were two times more likely to be accompanied.²⁹
- 97 percent of farmworker mothers were accompanied by their children, compared to 55 percent of farmworker fathers.³⁰
- Farmworker parents who had authorization to work inside the U.S. were twice as likely to be accompanied by family as were parents who lacked authorization.³¹

Prenatal Care

- Extreme poverty, constant mobility, language differences and lack of transportation make it difficult for farmworkers to have regular access to medical care.³²
- In a 2005 study, only 42 percent of migrant and seasonal farmworker women reported accessing prenatal care services early on in their pregnancy (within the first 3 months). Compare this with the 76 percent of women who access early prenatal care nationally.³³ One study in California found that postnatal care for an infant without prenatal care costs \$2,341 more initially and \$3,247 more when incremental long-term morbidity cost is added. In addition, the study found that for every dollar cut from prenatal care, the state of California could expect an increase of \$3.33 in the cost of postnatal care and \$4.63 in incremental long-term cost.³⁴
- Data from the Pregnancy Nutrition Surveillance System found that of 4,840 migrant women monitored, 52 percent (1,835) had less than recommended weight gain throughout their pregnancies 23.8 percent had undesirable birth outcomes, 6.7 percent had low birth weight, .7 percent had very low birth weight, 9.9 percent had preterm births, while 6.5 percent were small for gestational age.³⁵

Pediatric Care

- A study done by Alan Dever found that migrant clinics had twice as many visits with children younger than 15 years of age as ambulatory care settings in general. Overall, 43.9% of the migrant workers surveyed had more than one morbidity. The highest rate of co-morbidity was for those patients younger than 5 years of age and older than 64 years of age.³⁶ In this same study, 61% of migrant children seen at migrant health clinics had at least one health problem while 43% had two or more problems.³⁷
- Another study found that 53% of farmworker children had an unmet medical need according to their caretakers. This is twenty-four times higher than that reported for U.S. children overall (2.2%), 29% times higher than that for non-Hispanic white children (1.8%), twenty times that of non-Hispanic Black children (2.7%), and fifteen to sixteen times higher than reports for both Mexican American (3.5%) and Hispanic (3.4%) children.³⁸

Nutrition

- A mother's education plays a key role in their child's nutrition status. In 2008 in most countries, children with less educated mothers are much more likely to fail to reach their biological potential for growth. This includes especially low heights, low IQs and less education.³⁹
- A study examining the diet of Mexican-origin migrants found that 61.2% of the diets were deficient in Vitamin A; 30.6% deficient in Vitamin C; 57.1% deficient in calcium, and 42.8% deficient in Riboflavin.⁴⁰
- A 2007 study of migrant and seasonal farmworkers found that 82% of households experienced food insecurity, 49% of who additionally reported hunger.⁴¹

Occupational Health & Safety

- The occupational hazards of farm work pose significant risks to pregnant women and children. Some of the occupational hazards faced by farmworkers include prolonged standing and bending, overexertion, extremes in temperature and weather, dehydration, chemical exposure, and lack of sanitary washing facilities in the fields. These occupational hazards can lead to spontaneous abortion, fetal malformation, or growth retardation and abnormal postnatal development.⁴²
- Exposing pregnant farmworkers to pesticides puts unborn children at risk for various severe physical and neurological developmental abnormalities such as facial/ cranial malformation and missing limbs.⁴³
- Pesticide exposure commonly occurs in children via the take-home pathway. Parents working with pesticides often carry contaminated clothes, shoes and hats which then reaches children via household dust found in cars and common living areas. In a study involving urine samples, almost all children (88%) whose parents worked with pesticides tested positive for pesticide metabolites in their system.⁴⁴
- Further, children of farmworker families are exposed to the harsh and unstable environment of migrant work: 85% of farmworker housing units are typically over-crowded⁴⁵, high levels of anxiety, depression and suicidal attempts are commonly present in women⁴⁶, and overwhelming occurrences of farm injuries in both adults and children have been documented.⁴⁷

Other

- According to the findings of the latest National Agricultural Workers Survey, 77% of farmworkers were uninsured.⁴⁸ The Kaiser Foundation found that 90% of farmworker children are uninsured compared to the 22% of nationally uninsured low-income children.⁴⁹
- Although many migrant farmworkers are eligible for Medicaid, few are able to take advantage of such benefits. The constant movement associated with migration prevents enrollment in State-administered

public health insurance programs.⁵⁰ Recent studies have proposed the idea of portable insurance plans, which are accepted across state borders where farmworkers frequently travel.^{51,52}

-
- ¹ March of Dimes. *United States Quick Facts: Perinatal Overview*. Available online at <http://www.marchofdimes.com/peristats/tlanding.aspx?reg=99&top=1&lev=0&slev=1> Accessed Sep. 15, 2008.
- ² Martin JA, Hamilton BE, Sutton PD, et al. Births: Final data for 2003. National vital statistics reports; vol 54 no 2. Hyattsville, MD: National Center for Health Statistics. 2005. Available at: http://www.cdc.gov/nchs/data/nvsr/nvsr54/nvsr54_02.pdf.
- ³ Ibid.
- ^{3a} Ibid
- ^{3b} Ibid.
- ⁴ National Center on Birth Defects and Developmental Disabilities. (2007). *Birth Defects: Frequently Asked Questions*. Available online at <http://www.cdc.gov/ncbddd/bd/faq1.htm#chanceofBD> Accessed Sep. 15, 2008.
- ⁵ March of Dimes, PeriStats. *United States Quick Facts: Perinatal Overview*. Available online at <http://www.marchofdimes.com/peristats/tlanding.aspx?reg=99&top=1&lev=0&slev=1> Accessed Sep. 15, 2008.
- ⁶ Hamilton BE, Ventura SJ, Martin JA, and Sutton PD. Preliminary births for 2004. Health E-stats. Hyattsville, MD: National Center for Health Statistics. Released October 28, 2005.
- ⁷ Population Reference Bureau. (2008). *2008 World Population Data Sheet, p. 8*. Available online at http://www.prb.org/pdf08/08WPDS_Eng.pdf Accessed Sep. 15, 2008.
- ^{7a} United States Central Intelligence (2008) *CIA World Fact Book*. Available online at <http://www.indexmundi.com/g/r.aspx?c=us&v=31>. Accessed December 10, 2008.
- ⁸ Population Reference Bureau. (2008). *2008 World Population Data Sheet, p. 8*. Available online at http://www.prb.org/pdf08/08WPDS_Eng.pdf Accessed Sep. 15, 2008.
- ⁹ Central Intelligence Agency. (2008). *The World Factbook: United States*. Available online at <https://www.cia.gov/library/publications/the-world-factbook/geos/us.html> Accessed Sep. 15, 2008.
- ¹⁰ Population Reference Bureau. (2008). *2008 World Population Data Sheet, p. 8*. Available online at http://www.prb.org/pdf08/08WPDS_Eng.pdf Accessed Sep. 15, 2008.
- ¹¹ National Center for Health Statistics. (2007). *Child Health: Mortality*. Centers for Disease Control and Prevention. Available online at <http://www.cdc.gov/nchs/fastats/children.htm> Accessed Sep. 15, 2008.
- ¹² WHO, UNICEF, UNFPA and The World Bank. (2005). *Maternal Mortality in 2005*. Available online at http://www.who.int/whosis/mme_2005.pdf Accessed Sep. 15, 2008.
- ¹³ Ibid.
- ¹⁴ Martin JA, Hamilton BE, Sutton PD, Ventura SJ, Menacker F, Kirmeyer S, Munson ML. (2007). Births: Final data for 2005. *National vital statistics reports; vol 56 no 6*. National Center for Health Statistics.
- ¹⁵ Ibid.
- ¹⁶ Ibid.
- ¹⁷ Ibid.
- ¹⁸ Mathews TJ, MacDorman MF. (2008). Infant mortality statistics from the 2005 period linked birth/infant death data set. National vital statistics reports; vol 57 no 2. Hyattsville, MD: National Center for Health Statistics.
- ¹⁹ U.S. Department of Health and Human Services. (2006). Healthy Pregnancy: What to Eat While Pregnant, The National Women's Health Information Center. Available online at <http://www.4woman.gov/pregnancy/pregnancy/eat.cfm#nutrients> Accessed Sep. 19, 2008.
- ^{19a} Brown, J.E. (1998) *Nutrition and Pregnancy: A Complete Guide From Preconception to Post-delivery*. Lincolnwood, IL: Lowell House.
- ²⁰ Centers for Disease Control and Prevention. (2007). Preconception and Interconception Health Status of Women Who Recently Gave Birth to a Live-Born Infant. *MMWR, 56(SS10);1-35*.
- ^{20a} Brown, J.E. (1998) *Nutrition and Pregnancy: A Complete Guide From Preconception to Post-delivery*. Lincolnwood, IL: Lowell House.
- ²¹ Centers for Disease Control and Prevention. (2007). Preconception and Interconception Health Status of Women Who Recently Gave Birth to a Live-Born Infant. *MMWR, 56(SS10);1-35*.
- ²² U.S. Census Bureau (2008) *Income, Poverty, and Health Insurance Coverage in the United States: 2007*. U.S. Government Printing Office. Available online at <http://www.census.gov/prod/2008pubs/p60-235.pdf>
- ²³ DeNavas-Walt, Carmen, Bernadette D. Proctor, and Jessica C. Smith. (2008). *U.S. Census Bureau, Current Population Reports, P60-235, Income, Poverty, and Health Insurance Coverage in the United States: 2007*, U.S. Government Printing Office.
- ²⁴ Ibid.
- ²⁵ March of Dimes PeriStats. *United States Quick Facts: Health Insurance Overview*. Available online at <http://www.marchofdimes.com/peristats/tlanding.aspx?dv=it®=99&top=11&lev=0&slev=1> Accessed Sep. 15, 2008.
- ²⁶ Ibid.
- ²⁷ Susan Anton. (2003). *Closing the Gap: Patriarchy, Fertility, and Latina Farmworkers in South Carolina*, Entrecaminos, Center for Latin American Studies, Georgetown University.
- ²⁸ National Agricultural Workers Survey 2001-2002, Washington, D.C.: U.S. Department of Labor, 2005
- ²⁹ Ibid.
- ³⁰ Ibid.
- ³¹ Ibid.

- ³² Rosenbaum, Sarah; Shin, Peter. (2005). *Migrant and Seasonal Farmworkers: Health Insurance Coverage and Access to Care*. Kaiser Commission on Medicaid and the Uninsured. Available online at <http://www.kff.org/uninsured/upload/Migrant-and-Seasonal-Farmworkers-Health-Insurance-Coverage-and-Access-to-Care-Report.pdf>
- ³³ Rosenbaum, Sarah; Shin, Peter. (2005) *Migrant and Seasonal Farmworkers: Health Insurance Coverage and Access to Care*. Kaiser Commission on Medicaid and the Uninsured. Available online at <http://www.kff.org/uninsured/upload/Migrant-and-Seasonal-Farmworkers-Health-Insurance-Coverage-and-Access-to-Care-Report.pdf>
- ³⁴ Lu MC, Lin YG, Prietto NM, Garite TJ. (2000) *Elimination of public funding of prenatal care for undocumented immigrants in California: A cost/benefit analysis*. American Journal of Obstetrics and Gynecology. 2000 January; 182 (1): 233-239.
- ³⁵ Centers for Disease Control and Prevention. April 4, 1997. Morbidity and Mortality Weekly Report. Pregnancy-Related Behaviors Among Migrant Farm Workers: Four States, 1989-1993. 46(13):283-286.
<http://www.cdc.gov/mmwr/preview/mmwrhtml/00047114.htm>.
- ³⁶ Dever, G.E. A. (1991). *Profile of a Population With Complex Health Problems*. Austin, Texas: Migrant Clinicians Network
- ³⁷ Ibid
- ³⁸ Weathers, Andrea & Etal. (2003). *Health Service Use by Children of Migratory Agricultural Workers: Exploring the Role of Need for Care*. Pediatrics Vol. 111 No. 5 May 2003.
- ³⁹ Population Reference Bureau. (2008). *2008 World Population Data Sheet*, p. 6. Available online at http://www.prb.org/pdf08/08WPDS_Eng.pdf Accessed Sep. 15, 2008.
- ⁴⁰ Thomas, E.C. (1996). *Bitter Sugar: Migrant Farmworker Nutrition and Access to Service in Minnesota*. St. Paul, MN: The Urban Coalition
- ⁴¹ Weigel, Margaret, et al. (2007). The Household Food Insecurity and Health Outcomes of U.S.-Mexico Border Migrant and Seasonal Farmworkers. *Journal of Immigrant and Minority Health*, (2007) 9:157-169.
- ⁴² Gwyther, Marni E. & Jenkins, Melinda. (1998) *Migrant Farmworker Children: Health Status, Barriers to Care, and Nursing Innovations in Health Care Delivery*. Journal of Pediatric Health Care March/April 1998.
- ⁴³ Chelminski, A. N., Higgins, S., Meyer, R., Campbell, D., Pate, W. and Rudo, K. (2004) *Assessment of Maternal Occupational Pesticide Exposures during Pregnancy and Three Children with Birth Defects: North Carolina*. North Carolina Health and Human Services Department. 2006.
- ⁴⁴ Thompson, B., Coronado, G.D., Grossman, J.E., Puschel, K., Solomon, C.C., Islas, I., Curl, C.L., Shirai, J.H., Kissel, J.C. and Fenske, R.A. Pesticide Take-Home Pathway among Children of Agricultural Workers: Study Design, Methods and Baseline Findings. *Journal of Occupational and Environmental Medicine*. Vol. 45, 1. 2003.
- ⁴⁵ The Housing Assistance Council. (2000) *Abundant Fields, Meager Shelter: Findings from a Survey of Farmworker Housing in the Eastern Migrant Stream*. Washington, DC.
- ⁴⁶ Hovey, J.D. and Magana, C.G. (2003) *Suicidal Risk Factors Among Mexican Migrant Farmworker Women in the Midwest United States*. Archives of Suicide Research. Vol.7. 2003.
- ⁴⁷ Committee on Injury and Poison Prevention and Committee on Community Health Services. (2001) *Prevention of Agricultural Injuries Among Children and Adolescents*. American Academy of Pediatrics. 2001.
- ⁴⁸ US Department of Labor. (2005) *Findings from the National Agricultural Workers Survey (NAWS) 2001-2002: A Demographic and Employment Profile of United States Farm Workers*.
- ⁴⁹ Rosenbaum, S. and Shin, P. (2005) *Migrant and Seasonal Farmworkers: Health Insurance Coverage and Access to Care*. Kaiser Commission on Medicaid and the Uninsured.
- ⁵⁰ Azevedo, K. (2001). *Access to Medical Insurance among Migrating and Non-Migrating Farmworkers: A Case Study from Rural California*. Julian Samora Research Institute.
- ⁵¹ Rosenbaum, S. (2008) *Medicaid Portability in the Context of Oral Health Care for Head Start-Enrolled Children in Migrant Farmworker Families*. George Washington University. 2008
- ⁵² Bustamante, A.V., Ojeda, G., and Castaneda, X. (2008) *Willingness to Pay for Cross-Border Health Insurance Between the United States and Mexico*. Market Watch. January/ February 2008