COUNTY OF HUMBOLDT

Department of Health & Human Services
Phillip R. Crandall, Director

Fetal-Infant Mortality Review
&
Child Death Review Team

Recommendations Report
2007-2008

"Working Together for a Healthy Community"

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Humboldt County, CA
Fetal-Infant Mortality Review &
Child Death Review Team

Recommendations Report 2007-2008

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Executive Summary

"Children do well when their families do well, and families do better when they live in supportive communities."
Annie Casey Foundation

This report presents recommendations and findings from the review of 33 fetal, infant, child and adolescent deaths (through age 17). The cases reviewed during 2007-2008 included ten fetal deaths, sixteen infant deaths, and seven deaths to children age 1-17. Please note that the deaths reviewed in 2007-08 may have occurred during or before this two-year period. The Team found:

- Alcohol and other drug use continue to play a role in fetal, infant and child deaths
- Maternal depression, which includes perinatal and postpartum depression, is increasingly identified in infant and child cases
- Sudden Infant Death Syndrome (SIDS) is the cause of death in most of our postneonatal (age one month to one year) cases
- The sleeping environment of infants continues to be a contributing factor in "SIDS", "asphyxia" and "undetermined" infant deaths
- Unintentional injuries remain the leading cause of deaths for youth in Humboldt County

→ *These are recurring issues seen in past reports.*

The ultimate goal is to prioritize the health and safety of our children. To do this, we need to improve our understanding of how and why infants and children die. By reviewing individual cases we learn more about how to carefully target prevention practices and education, increase coordination and communication between agencies and systems, and to influence policy and program change that improves the health of families and their children. However, while health promotion campaigns may be effective and straight forward, systems issues, agency practices, and communication between organizations are much more difficult to impact.

We hope that the information contained in this report provides encouragement and motivation for our community to address risk factors and services that will prevent the future infant and child deaths.

As always, we acknowledge and thank the members of the FIMR/CDR Team. Our community has benefited from their collaboration, commitment to the review process and the resulting positive outcomes.

Team Accomplishments 2007-2008:

- The MCAH Perinatal Services Coordinator developed a perinatal and postpartum mood disorder task force in response to case findings that approximately 30% of mothers experienced some form of perinatal depression.
- Education on SIDS and a safe infant sleep environment for families continues to be provided by Public Health Nurses, home visitors, medical providers and community members. The team developed a Safe Infant Sleeping workgroup in 2007 to increase community outreach.
- Informational packets on SIDS was provided to Changing Tides Family Services for distribution to child care providers.
- Injury prevention continues to be addressed by the Health Education Division of the Public Health Branch which coordinates the Child Passenger Safety Program, Youth Driving Coalition, Life Jacket Loaner Program and participates in the Water Safety Coalition.
- The team received training by Dr. Steve Wirtz of the California Department of Public Health on "Creating a Consistent Child Maltreatment Classification System for Child Death Review Teams in California".

Humboldt County

Fetal-Infant Mortality Review and Child Death Review Team

The Composition and Purpose of the Team

The team is comprised of professionals representing diverse agencies that are involved in protecting and supporting families. There are approximately 25 members on the team representing the Department of Health and Human Services, coroner, law enforcement, hospitals, obstetricians and pediatricians in private practice, community-based organizations, emergency services, alcohol, tobacco and other drug prevention programs, childcare providers, and others. A multidisciplinary team approach is utilized because the circumstances involved in most child deaths are too multidimensional for responsibility to rest with a single individual or agency.

The purpose of the team is to investigate, in depth, the causes of death to fetuses (20 weeks gestation or over 500 grams), infants, and children up through age 17 years in Humboldt County. The team focuses on social, health, economic and safety issues that affect families and how community resources and local service systems respond to their needs. While some factors that contribute to fetal and infant death may not be modifiable with the skills and resources currently available, there are many factors that can be addressed. Through a comprehensive, broad review of these deaths, we can better understand how and why children die and we can use our findings to take action that can prevent other deaths and improve the health and safety of our children.

Examples of Past Findings

The Humboldt County FIMR/CDR Team released bi-annual reports since 1993. Recommendations and findings from those reports addressed a number of major areas including:

- Autopsy, death investigations, and cause of death determinations
- Decentralization of service delivery to underserved areas
- Sudden Infant Death Syndrome and safe infant sleep practices
- Infant health
- Late/inadequate prenatal care
- Perinatal substance abuse
- Prenatal and postpartum depression
- Unintentional injuries, particularly motor vehicle and water safety

Historical Background

The California Fetal & Infant Mortality Review (FIMR) Program was created in 1991 using a Federal Title V block grant. Humboldt County became one of 11 counties that contracted with the California Department of Health Services, Maternal and Child Health Branch, to conduct a local FIMR program. Since that time additional programs have started and there are now approximately 17 FIMR projects and 56 Child Death Review teams in California. Humboldt and a few other small counties have chosen to combine FIMR activities with case review of older child deaths. The combined Humboldt County FIMR and Child Death Review Team (FIMR/CDR) began meeting monthly in 1992. Since that time over 300 cases have been reviewed.

FIMR/CDRT Findings 2007 – 2008

Fetal and Infant Deaths

Fetal Deaths

Research into risk factors associated with fetal and perinatal mortality has identified a wide variety of related factors, including maternal obesity, smoking during pregnancy, severe or uncontrolled hypertension or diabetes, infections, placental and cord problems, intrauterine growth retardation, and previous perinatal deaths.

Ten fetal deaths were reviewed during 2007-08:

- *The leading causes of fetal deaths in these cases were from cord accidents and prematurity.*
- *Four out of ten mothers reported using tobacco.*
- *Seven of the ten women began care in the first trimester; three began care in the second trimester.*

When fetal death occurs after 20 weeks of pregnancy it is called, "stillbirth." These deaths occur in about one in 200 pregnancies, and there are more than 25,000 stillbirths every year in the United States. Many of these deaths are the result of birth defects, infections, umbilical cord problems, and chronic conditions of the mother. However, there is no known cause for as many as half of all stillbirths, leaving many parents without answers to the reasons for these deaths.

Infant Deaths

"This is about social justice. Infant mortality is a measure of social well-being, not just health, and not just access to health care. Poverty and economics and nutrition and exposure to environmental factors all play a role. We have to look at the whole picture."

Hani Atrash, MD

Sixteen infant deaths were reviewed during 2007-08:

The FIMR/CDR team reviewed seven neonatal cases (babies up to 28 days old), and nine postneonatal cases (babies 29 days old until their first birthday) during 2007-08.

- *The leading cause of neonatal deaths was prematurity.*
- *The leading cause of postneonatal deaths was attributed to SIDS; these accounted for 44 percent (n=4) of the nine deaths.*
- *Of interest, the deaths included two from asphyxia, one from "undetermined", one was related to prematurity, one congenital anomaly, and one from an unintentional injury.*
- *Of the four SIDS deaths, two were sleeping with an adult or a sibling. Two of four mothers smoked tobacco; one mother and her infant tested positive for opiates.*
- *The infant who died from an "undetermined" cause was sleeping in an adult bed with one parent.*
- *Nine women (56 percent) began prenatal care in the first trimester; four women (25 percent) began care in the second trimester, two (13 percent) started care in the last trimester and one had no prenatal care.*
- *Eight of the 16 mothers (50 percent) reported using tobacco.*
- *Three of the 16 cases (19 percent) had maternal toxicology tests either during the pregnancy or at the time of delivery. One woman and her infant tested positive for amphetamines, one tested positive for amphetamines, marijuana and THC, and one for cannabinoids and opiates.*

Infant mortality is one of the most important indicators of the health of a nation, as it is associated with a variety of factors such as maternal health, quality and access to medical care, socioeconomic conditions, and public health practices.

While the U.S. infant mortality rate has fallen steadily over the last three decades, our rate is higher than those in most of the other developed countries, and the gap between our rate and the rates for the countries with the lowest infant mortality appears to be widening. In 2005, the U.S. ranked 30th in the world for infant mortality out of 37 developed countries. *(NCHS Data Brief, No. 23, November 2009.)* Data from the 2006 preliminary mortality file estimate the nation's infant mortality rate to be 6.71, a two percent decline from the final rate of 6.86 in 2005. Also, large differences remain in infant mortality rates by race and ethnicity. Non-Hispanic black, American Indian or Alaska Native, and Puerto Rican women have the highest infant mortality rates.

The Healthy People 2010 infant mortality rate objective is 4.5. California's three year average for 2004-06 stood at 5.3, while Humboldt County's 2006-08 average was 6.2.

Team Recommendations

Fetal and Infant Health

Preconception/Perinatal Health and Prenatal Care

Recommended Actions:

- ☞ Collaborate with community partners to expand awareness about perinatal and postpartum mood disorders.
- ☞ Work to expand community and provider awareness about gestational diabetes and diabetes in general.
- ☞ Continue focus on improving early entry and adequacy of prenatal care rates. Review data trends by ethnicity on perinatal issues.
- ☞ Ensure that prompt grief support is provided to families; encourage hospitals to make immediate grief referrals to Public Health Nursing when demise occurs in hospital setting.
- ☞ Translate grief support letter into Spanish; support Public Health Nursing's access to bilingual staff.
- ☞ Support providers in educating women about fetal kick counts and "warning signs".
- ☞ Encourage providers to offer autopsy when there is a fetal demise.
- ☞ Acknowledge that unintended pregnancies are often high risk situations.
- ☞ Work to expand community and provider knowledge about preconception health.

Progress:

- ➔ The MCAH Perinatal Services Coordinator (PSC) facilitated the development of a "Perinatal Postpartum Mood Disorder Task Force". The group, consisting of medical and human service providers and survivors of perinatal mood disorders, has accomplished the following:
  - – Created a resource sheet and self-screening tool for perinatal depression for community and provider use to expand awareness and improve access to care. This tool was included in 1500 breastfeeding support bags and distributed to medical offices, clinics, Public Health Field nursing staff, family resource centers, WIC, key social services access points and playgroups.
  - – Conducted eight educational opportunities for professional and lay community members.
  - – Supported the Deputy Health Officer in discussing perinatal depression at a 2007 OB/PEDS meeting.
  - – Published articles on perinatal mood disorders in the Humboldt Del Norte Medical Bulletin and DHHS newsletter.
  - – Applied for grants to fund a DVD on perinatal depression and to conduct a workshop for local professional and community members.

➔ In support of team recommendations, the MCAH Perinatal Services Coordinator:

- met with WIC staff about counseling and providing information to women on gestational diabetes, collaborated with a local hospital to conduct a training on diabetes in pregnancy and facilitated a meeting of community partners to address gestational diabetes in the Latina population.
- presented to Social Services Branch eligibility workers about the importance of early entry into pregnancy care and facilitated a partnership to improve referrals to Prenatal Care Guidance Program.
- created and distributed referral binders to all OB practices which included services for bereavement and grief counseling.
- distributed kick count cards to all OB providers; United Indian Health included information about kick counts, perinatal depression, and signs of preterm labor on appointment cards.
- contacted hospital pathologists and found there was no charge for autopsies if done in the hospital setting at the time of delivery and death. The Coroner's Office does not charge for autopsies.
- facilitates a quarterly meeting with leaders in the Latino perinatal community (Paso a Paso) to discuss issues and address identified needs.

➔ A review of prenatal care data trends by ethnicity was conducted. Findings for the 2004-2006 period indicated Native American women had the lowest entry into prenatal care rate, and a greater number of large for gestational age babies.

Challenges:

✳ As cited in the previous team report, providing services for very high-risk pregnant women is difficult because they often enter into prenatal care late and miss appointments. Intensive coordinated case management is needed to reach this population. The Department of Health and Human Services is collaboratively working with local agencies and providers to identify possible strategies and opportunities for improved services.

✳ Unintended pregnancy (an unwanted or mis-timed pregnancy) is becoming recognized as an important issue. Unintended pregnancy has both emotional and economic consequences, and is a risk factor for late/inadequate prenatal care, exposure of the fetus to alcohol, tobacco and other drugs, maternal depression, low birth weight, and neonatal death. Preconception care is a positive approach to pre-pregnancy health issues and family planning. Community collaboration is vital to address these concerns.

☺ In July of 2009 the Public Health Branch began the "Nurse-Family Partnership", an evidence-based home visiting program that provides support visits to first-time mothers who are eligible for MediCal. A Public Health Nurse will visit the family during the woman's pregnancy and until the child turns age two. This program may play a positive role in the above challenges.

Sudden Infant Death Syndrome

Recommended Actions:

☞ Continue education and community awareness on "Back to Sleep" and safe sleeping guidelines.

Sudden Infant Death Syndrome, asphyxiation, and "undetermined" deaths due to "unsafe sleep environments" continue to play a large role in Humboldt County's infant mortality rate. Deaths from unsafe sleep environments are increasing on a national level as well. Recently the National Centers for Disease Control reported a four fold increase in the rate of infant death during the last twenty years that were attributable to accidental suffocation and strangulation in bed. The reason for the increase is unknown. Unsafe bedding, pillows, blankets were cited as risk factors.

The team formed a workgroup to specifically address community outreach and education. Members included home visiting staff from Head Start, Early Head Start (Northcoast Children's Services) and United Indian Health Services, as well as nurses from local hospitals and public health. The workgroup focused on increasing community awareness on the "Back to Sleep" campaign and offering information and education on "how to create a safe sleep environment". Development of simplified materials and messages was also a priority.

Progress:

- Public Health participated in "Pastels on the Plaza", using a pastel drawing to illustrate "safe sleep" and "back to sleep" messages. SIDS and safe sleeping information was available during the event. ("Pastels on the Plaza" is an annual fundraising event for Northcoast Children's Services. Agencies and businesses can "buy" a square of concrete on a city plaza, and create a message of their choosing which is drawn in pastel by local artists.)
- The group designed a one page flyer in English and Spanish showing an infant in a "safe sleep environment" with brief descriptive "safe sleeping tips". These flyers were laminated and placed on card stock and displayed in local city and county buses. Paid public service announcements on "safe sleeping tips" were placed on local English language radio stations, and one Spanish language radio station.
- Available funding was used to support United Indian Health Services in producing a poster showing "safe sleep options" in a culturally appropriate manner.
- A display on safe infant sleeping was placed at the main Public Health Branch office with take home materials available.

In addition, ongoing activities continued:

➜ A local diaper service continued to distribute the "Back to Sleep" door-hangers as part of this educational outreach campaign.

➜ The brochure **"All Babies Need a Safe Place to Sleep"** continued to be distributed via home visiting programs, hospitals, health care providers and children's retail shops.

➜ Educational packets for child care providers were given to Changing Tides Family Services for distribution to their providers. Over 90 child care providers and 250 families received this information.

➜ Public Health Nurses continued to screen and educate families, and provide them with "Snuggle Nests" as needed.

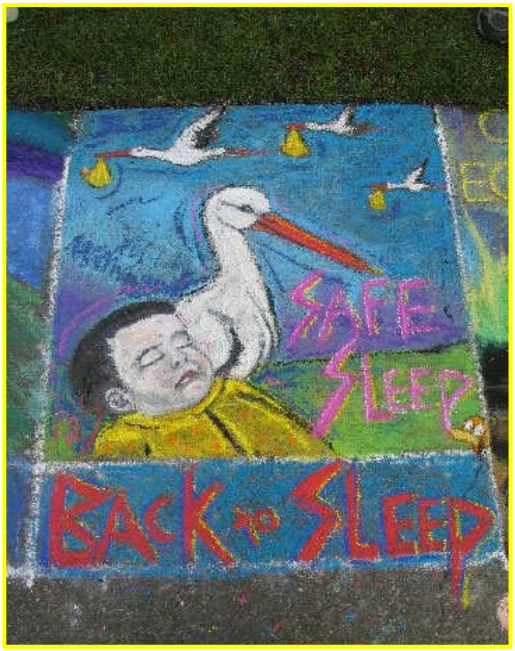
Example of a "Snuggle Nest"

Challenges:

- ✳ Reaching the most high-risk families about SIDS and a safe infant sleep environment continues to be challenging and we must maintain efforts to find and use innovative approaches.

Display at local mall October 2007

"Pastels on the Plaza" October 2008



Issues Related to Fetal and Infant Mortality

"Infant mortality is not a health problem.
Infant mortality is a social problem with health consequences."
Marsden Wagner, MD

Case reviews provide insight into issues local women experience when they have a fetal or infant loss. What occurs before and during a woman's pregnancy can often influence the birth outcome and the health of her infant. Late prenatal care, alcohol, tobacco, and other drug use, and homelessness are just some of the factors that are raised during the reviews.

Medical experts recognize the role preconception care can play in preventing poor pregnancy outcomes. Preconception and early prenatal care allow providers an opportunity to focus on medical, psychosocial, and behavioral risks that could have a negative impact on the health of a mother and her infant. An article in the American Journal of Obstetrics and Gynecology notes that, "if we want to achieve further improvements in maternal and infant outcomes, we must act before pregnancy; we must shift the focus from "anticipation and management" in prenatal care into a paradigm of 'prevention and health promotion' before pregnancy and throughout a woman's lifespan." (*Supplement to December 2008*.)

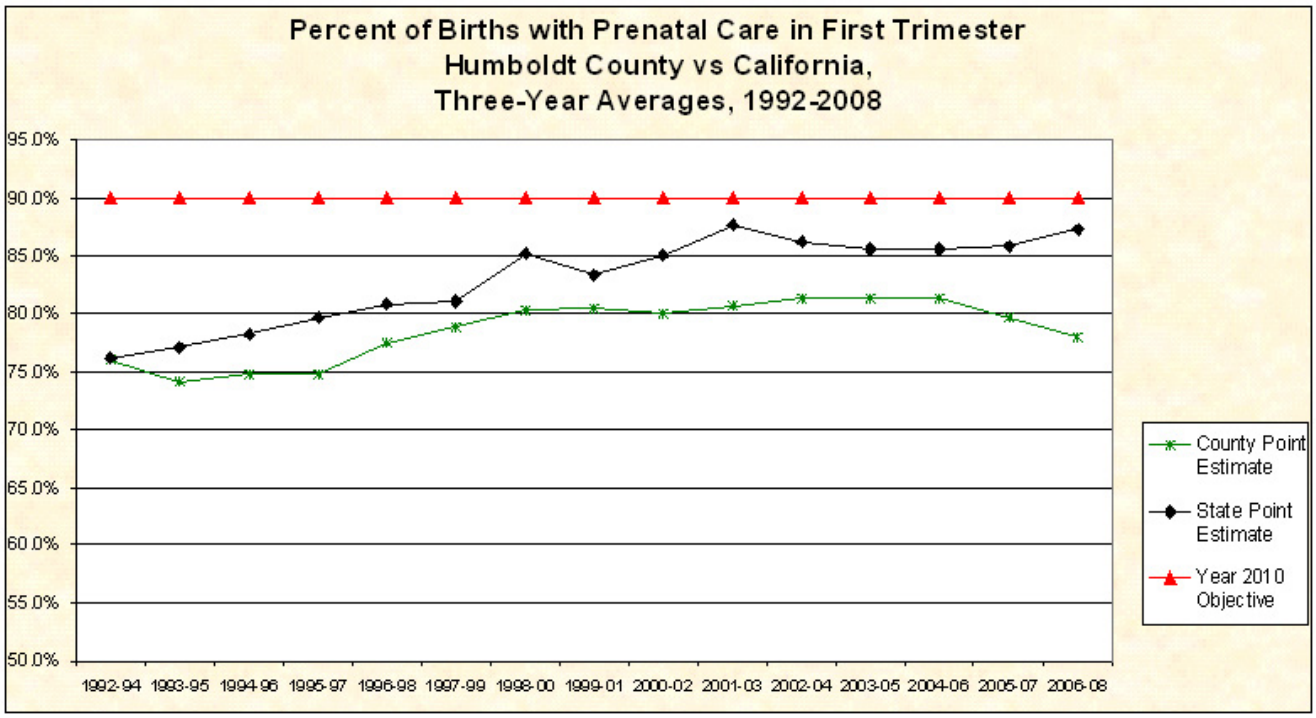
Prenatal Care – There is wide societal agreement that early entry into prenatal care is extremely important in improving birth outcomes. It is recommended that women begin prenatal care during the first trimester to allow for early screening and intervention. Women entering care early can benefit from referrals to WIC, dental services, home visiting or other programs.

There are many reasons why women initiate prenatal care late or do not receive it at all. Transportation, child care concerns, substance abuse, or a lack of health insurance are just a few of the barriers researchers have found.

Humboldt County's 2006-2008 three-year average for early entry to prenatal care is 78 percent. While we had been making gradual improvement in this area, there was a decrease in both 2007 and 2008 and we continue to fall below the State rate. The Healthy People 2010 goal is 90 percent - no more than ten percent of women receiving late prenatal care.

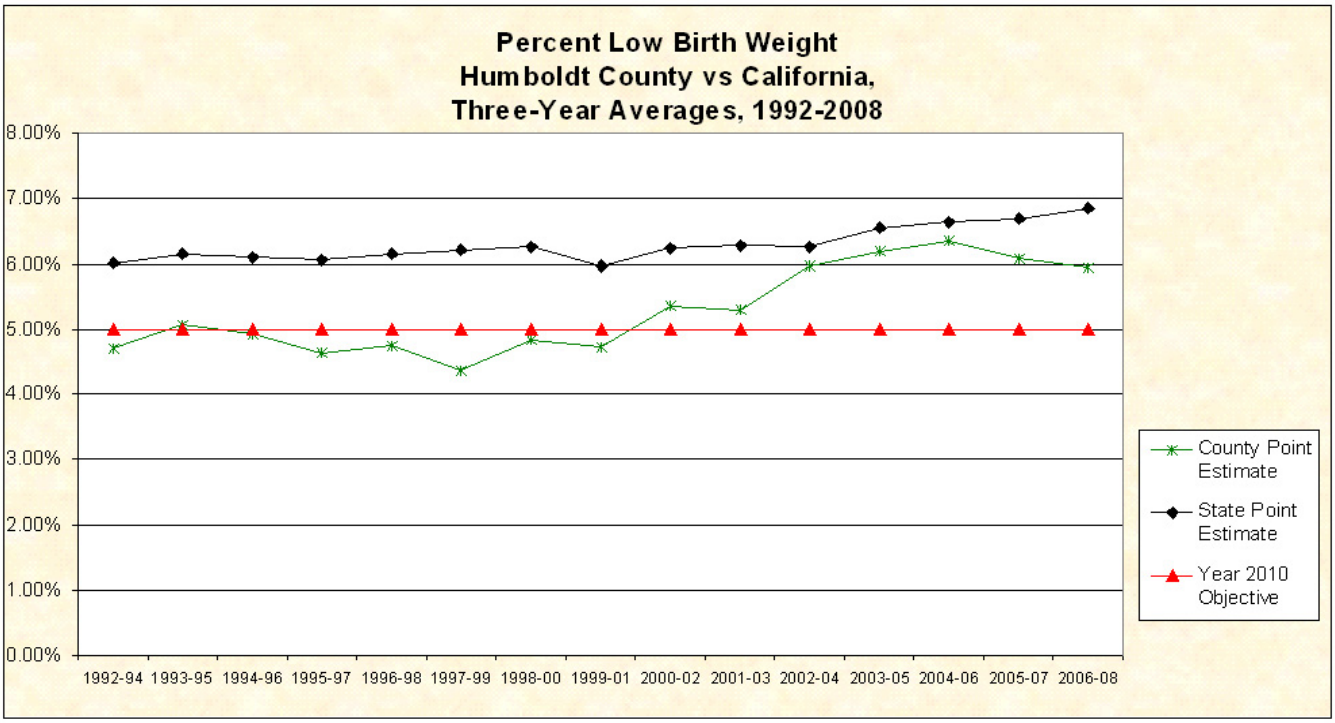
Prematurity and Low Birthweight - According to the Center for Disease Control, birthweight and period of gestation are the two most important predictors of an infant's subsequent health and survival. Infants born too small or too soon have a much greater risk of death, short-term and long-term disability than those born at term (37–41 weeks of gestation) or with birthweights of 2,500 grams or more. Infants born at the lowest birthweights and gestation ages have a large impact on the nation's overall infant mortality rate. In 2005, 36.5% of infant deaths in the United States were due to prematurity.

In 2006, 10.6 percent of babies were born preterm in California, while Humboldt County's 2006-08 three-year average was 8.3 percent. The Healthy People 2010 goal is 7.6% or less. Our average low birth weight percentage for 2006-2008 was 5.9, which continues to be lower than the 2006 California rate of 6.9 percent. The Healthy People 2010 goal is 5% or less.



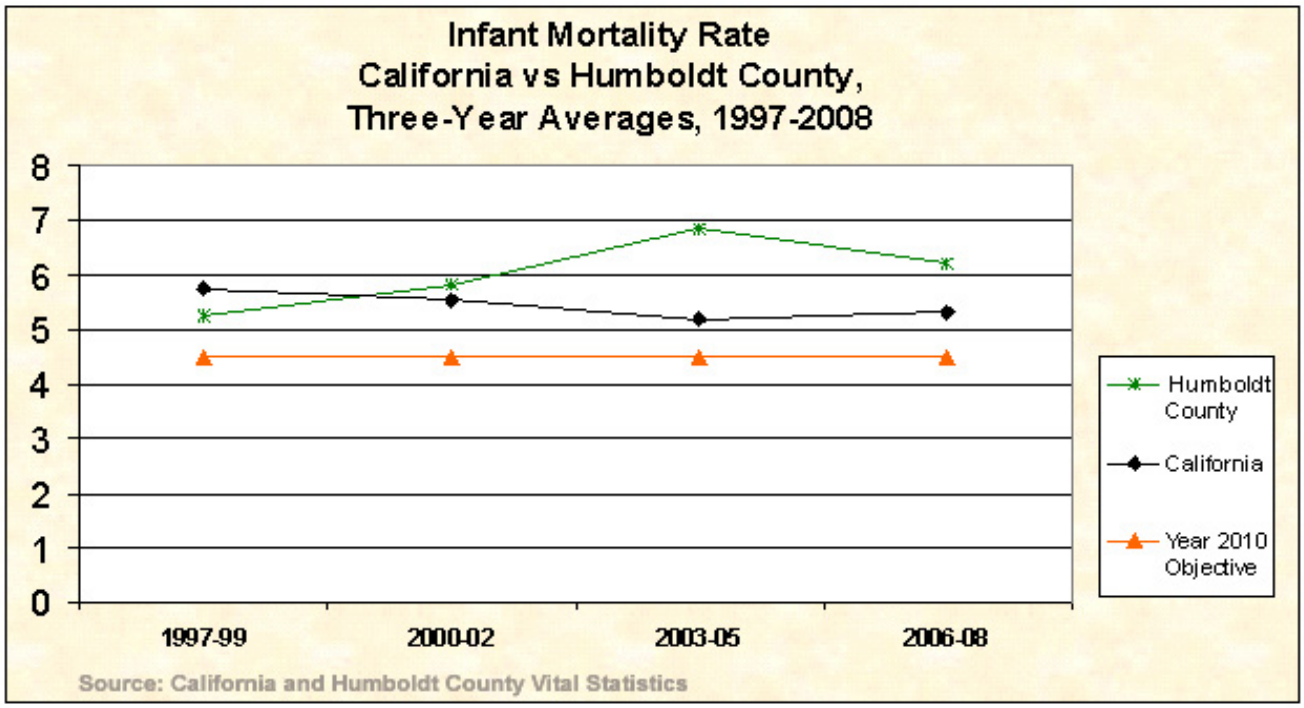
Source: California and Humboldt County Vital Statistics

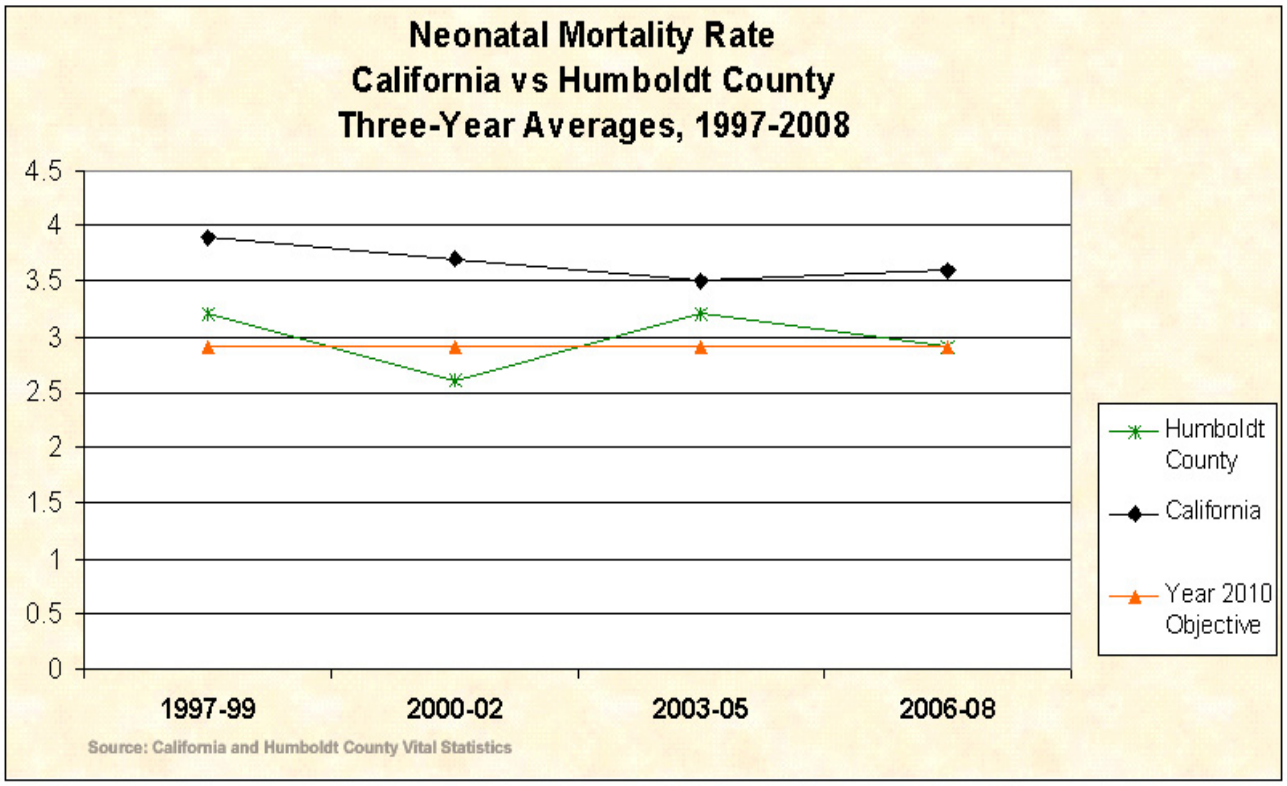
First trimester prenatal care continues to be a focus for the team and the Maternal, Child and Adolescent Health Division.



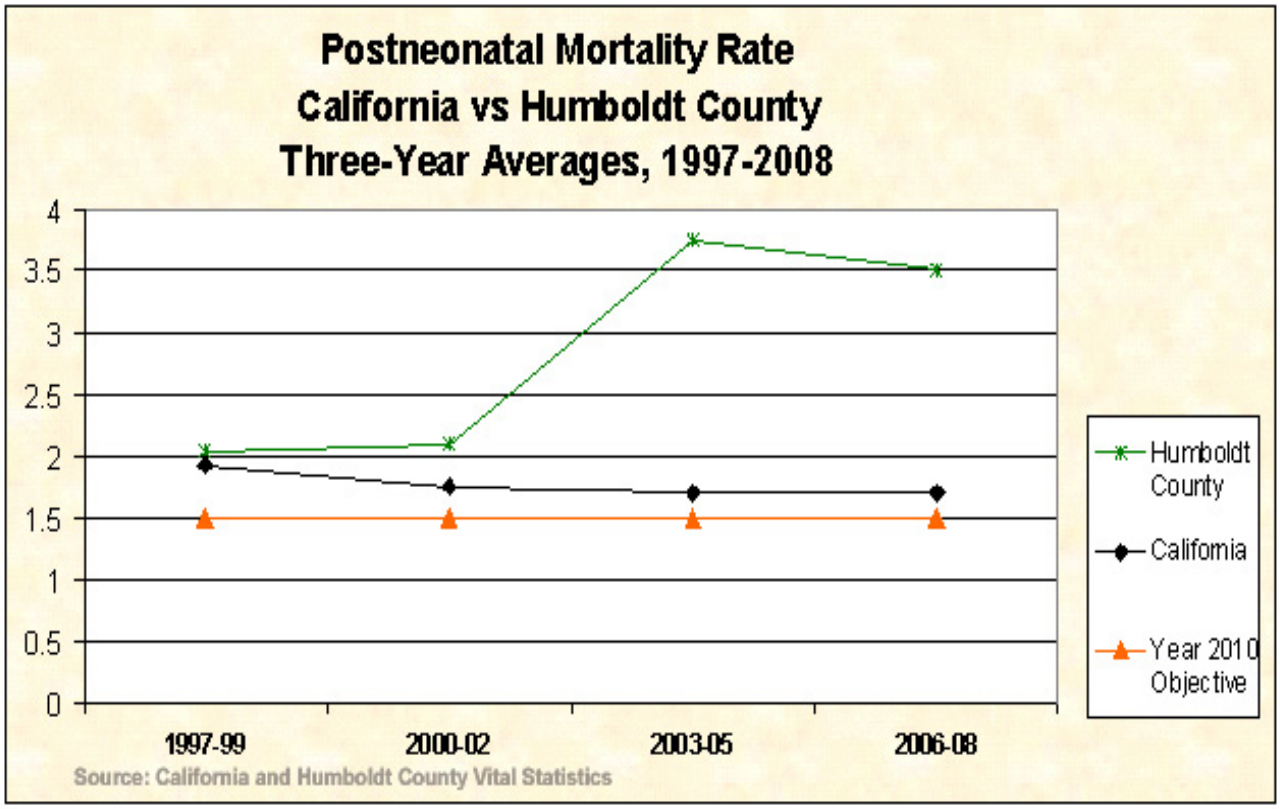
Source: California and Humboldt County Vital Statistics

Humboldt County's percentage of low birthweight infants continues to be lower than California's.





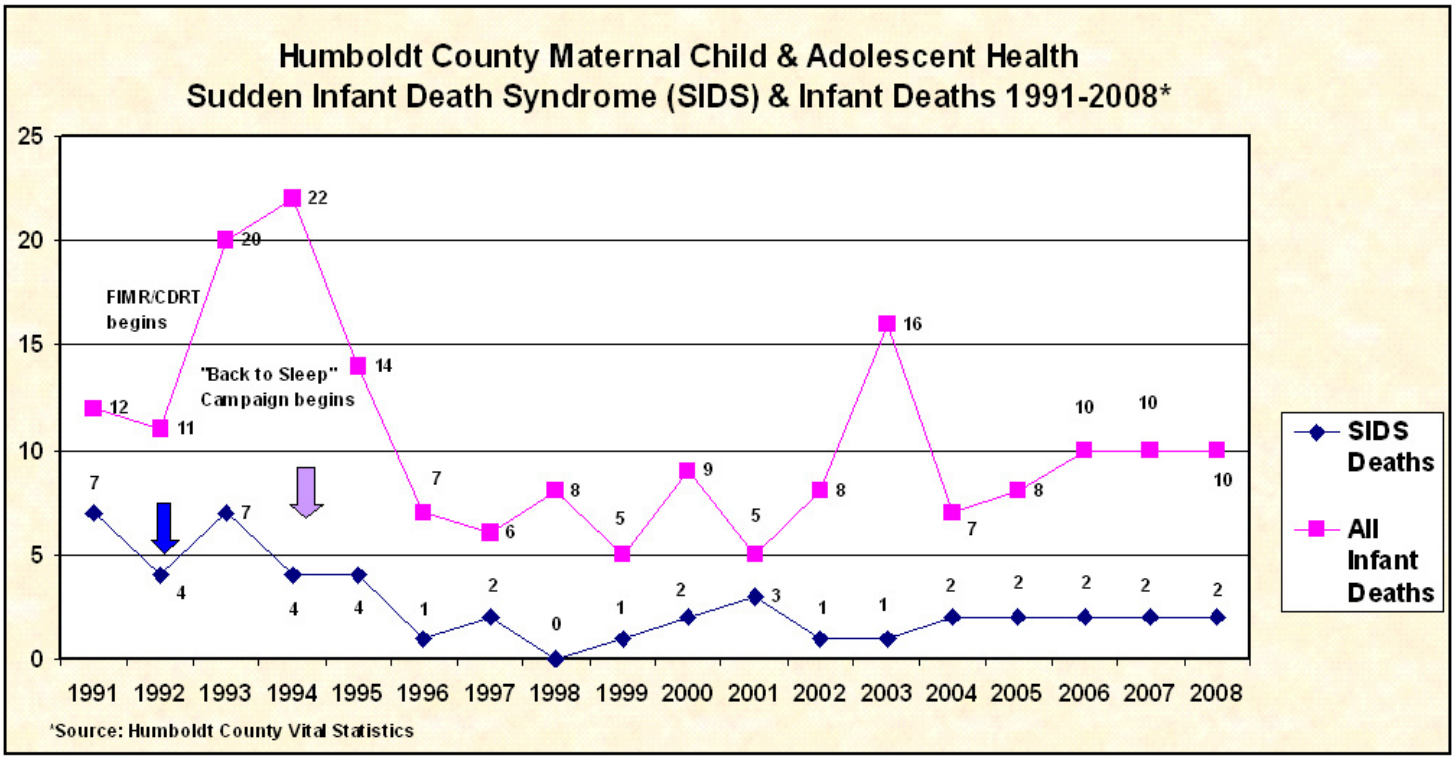
The county's neonatal mortality rate remains lower than the State rate and currently meets the Healthy People 2010 objective, while our infant mortality rate is higher than the State and Healthy People objective.

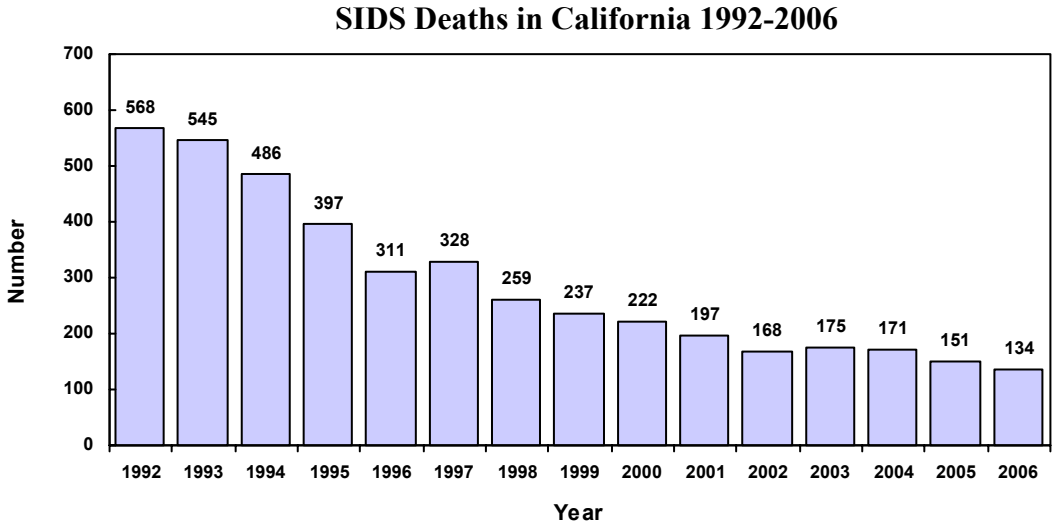


Improving the County's postneonatal rate remains a MCAH and team priority.

Sudden Infant Death Syndrome - Sudden infant death syndrome (SIDS) is the sudden death of an infant under one-year of age which remains unexplained after a complete postmortem investigation, including an autopsy, examination of the death scene, and review of the case history. SIDS is the most common cause of death in infants between the ages of one-month and one-year, affecting nearly one out of every 1,000 live births. Currently in the U.S. approximately seven babies die every day from SIDS.

The peak incidence is between 2 and 4 months of age. While approximately 95% of SIDS deaths occur before the age of 6-months, SIDS is still a risk up until one year of age.





SOURCE: Vital Statistical Report, United States Department of Health and Human Services. California Department of Public Health, Birth Statistical and Death Statistical Master Files, 1992-2006.

Future Focus:

Preconception Care, Early Prenatal Care, and Perinatal/Postpartum Depression

Preconception/Prenatal Care- Preconception care is defined as a set of interventions that aim to identify and modify biomedical, behavioral and social risks to a woman's health or pregnancy outcome through prevention and management. According to the CDC, substantial evidence shows that across all disciplines, promoting the health and wellness of women and couples prior to pregnancy translates into more favorable outcomes - *preconception health plays a critical role in improving the health of the nation.*

Preconception care as well as early prenatal care allow medical providers to address behaviors and risk factors that may influence poor birth outcomes early. Smoking, drinking alcohol, and using illegal drugs, as well as experiencing a pregnancy soon after a previous delivery, place women at greater risk for a poor pregnancy outcome. Medical conditions also influence birth weight, prematurity, and the health of the baby, such as high blood pressure; certain infections; heart, kidney or lung problems, or diabetes.

Many factors influence the access of early prenatal care, such as unintended pregnancies, use of alcohol or other drugs, lack of awareness of a pregnancy, and lack of insurance; those most likely to benefit from early care, teens, unmarried mothers and those with less education, may be less likely to receive it.

Team case reviews often find that these families experience many of the barriers and risk factors mentioned. The Maternal, Child and Adolescent Health Division and FIMR/CDR team continue to make preconception care and early entry into prenatal care a high priority.

Perinatal/Postpartum Mood Disorders - Information from FIMR case reviews and hospital discharge data via the newborn risk summary tool indicate that many women are experiencing depression during and after their pregnancy.

Up to 26 to 85 percent of women who have just given birth experience what is commonly known as “the baby blues”. This is a brief and mild condition which often resolves within a few weeks after delivery. However, it is estimated that 8 to 15% of women suffer from a clinically significant perinatal mood disorder. This number increases to 28% for women living in poverty. Studies show that the impact of maternal depression is far-reaching. Untreated prenatal depression can have a negative effect before the birth, with links to poor birth outcomes such as prematurity, low birthweight, and obstetric complications. Maternal depression can affect the mother’s adoption of preventive heath care practices such as breastfeeding, child safety or managing chronic health conditions, and may also threaten the development of healthy relationships between the infant, mother and partner.

Because of these findings, the MCAH Division and FIMR/CDR team have chosen perinatal mood disorders as a priority area of focus. MCAH staff facilitate a task force of local survivors, health care and human service providers to expand awareness to improve access to care for women suffering from perinatal mood disorders. For more information on the activities of the task force, please see page 5 of the recommendations section.

FIMR/CDRT Findings 2007 – 2008

Child and Adolescent Deaths

"The majority of adolescent and young adult deaths are due to preventable causes."
National Adolescent Health Information Center, 2006 Fact Sheet

The deaths of 7 children and youth were reviewed during 2007-08; six of these were from unintentional and intentional injuries:

- *Three deaths were due to motor vehicle related crashes; in one case the driver fell asleep.*
- *One non-county resident drowned after being hit by a wave with family sitting on the beach nearby. A personal floatation device was not used.*
- *Two died as a result of suicide.*
- *One child's death was "not determined".*

According to the *CDC Childhood Injury Report* (2000-2006), "injuries are among the most under-recognized public health problems facing the United States today. About 20 children die every day from a preventable injury – more than die from all diseases combined."

Nationally, the leading cause of death varies by age. For children under one, two-thirds of injury deaths are due to suffocation. Drowning is the leading cause of death for those 1 to 4 years of age, and for children 5 to 19 years of age the leading cause of death is injury from motor vehicle crashes.

In Humboldt County, motor vehicle crash injuries and drowning are the leading causes of death in children over the age of one. Motor vehicle crash injuries are the top cause of death for young people between the ages of 15 and 24.

We now know these injuries are preventable. The implementation of safety campaigns, including underage drinking prevention, seatbelt and helmet use, and water safety, have proven to be successful in preventing unintentional injury deaths.

In collaboration with community partners, the staff of the Department of Health and Human Services, Public Health Branch continue to carry out recommendations from the FIMR/CDRT and address unintentional injury through such injury prevention programs as the Child Passenger Safety Coalition, Youth Safe Driving program, and the Water Safety Coalition which includes the life jacket loaner program

A DHHS Child Passenger Safety technician checks the instruction manual at a local child passenger inspection station.

Team Recommendations

Child and Adolescent Deaths

Unintentional Injury

"Injuries do not result from random acts of fate or freak accidents. The causes of injuries are understandable and predictable, and resulting injuries are preventable."

Epidemiology & Prevention for Injury Control, California Department of Health Services

Motor Vehicle Safety

Recommended Action:

- ☞ Correct installation of car seats is vital. Support opportunities for agency & community car seat installations by certified technicians.
- ☞ Child Passenger Safety technicians continue to be needed throughout the county. Encourage agencies to enable staff to become certified CPS technicians and collaborate with the DHHS Child Passenger Safety Program.
- ☞ Educate both parents and young drivers about the dangers of distracted driving. This includes the use of cell phones while driving.
- ☞ Inform the Youth Driving and Childhood Injury Coalition that "drowsy driving" is an issue that needs more education. Encourage the topic to be discussed and covered whenever appropriate.
- ☞ Contact the California Highway Patrol and determine why no citation was issued to individual who provided alcohol to a minor in a case fatality.
- ☞ Check with Association of ATV Riders regarding funds for education and/or helmets. Determine ATV driving regulations.
- ☞ Research resources and programs available in Southern Humboldt for youth using alcohol or other drugs.

Progress:

- ➔ Community child safety seat check-up events continue to be held several times a year throughout the community. Coordinated by the Public Health Branch's Child Passenger Safety Program, technicians from local agencies provide staff support to make these collaborative activities successful. The program also conducts classes for parents in English and Spanish on a monthly basis.
- ➔ The Child Passenger Safety Coordinator is researching funding in order to conduct a new technician training in 2010.
- ➔ An eight-hour CPS update course was provided to twelve technicians in 2009.

➔ The Child Passenger Safety Programs holds monthly meetings for technicians and CPS advocates. These meetings allow technicians the opportunity to discuss issues, learn of new resources, and receive support for their CPS re-certification process.

➔ The Youth Driving Program began in 2005 and has:

- created educational materials and public awareness campaigns on youth driving issues including driving under the influence, driving distractions and the importance of seat belt use.
- developed a community event for parents and teens entitled "Drive Safe-Drive Smart" that includes a panel presentation by local experts and testimonials by families impacted by motor vehicle crashes. Topics covered include: the graduated drivers licensing law, driving distractions, safety concerns, insurance issues and DMV information. "Drowsy driving" is now addressed in presentations. Four events held during 2008 and 2009 reached 320 parents and teens and involved more than 80 local organizations
- held poster contests for high school students in 2007 and 2008. The top three winners received cash prizes and their artwork is being used to increase community awareness. Selections of over 30 art pieces were displayed each year in public venues for 30 days during the local "Arts Alive" events.
- conducted 12 seat belt observation surveys at local high schools and coordinated a seat belt awareness campaign.

➔ Team follow-up on motor vehicle (ATV) collision – the FIMR/CDRT Coordinator:

- contacted the CHP to follow up on decisions made regarding adults furnishing a minor with alcohol. Because the alcohol was not specifically bought for the minor in question, the adults involved were not cited.
- researched ATV regulations and contacted the ATV Safety Institute to obtain educational materials and discuss availability of training programs. Staff at the ATV Safety Institute reported classes are rarely held in our rural area but agreed to notify the FIMR/CDRT Coordinator should a class be scheduled.
- researched resources for youth in Southern Humboldt regarding ATOD counseling resources and reported back to the team on what was available.

Challenges:

✳ Funding for injury prevention education and needed safety equipment and supplies is scarce. It is also extremely challenging to obtain financial support for radio and TV public service announcements.

✳ Community awareness about the importance of using booster seats is limited.

Drowning

Death by drowning impacts children of all ages, as well as youth and adults. During the 2007-08 period, two cases were reviewed; one was a saltwater drowning, and the other was an infant under the age of one.

Recommended Action:

- ☞ Continue offering the life jacket loaner program and water safety education in the community.
- ☞ Increase information on water safety/safe bathing for infants and the need for constant supervision when infants are bathing or near water.
- ☞ Research efforts of other CDR teams that have reviewed drowning deaths involving the use of bath seats.

"Kids Don't Float" is an Alaskan state injury prevention program that combines education with a lifejacket loaner program!

Progress:

- ➜ The Public Health Branch Health Education Division established the Lifejacket Loan Program in 2003. The program continues and maintains a supply of lifejackets for children and adults at six locations throughout the county. These locations are advertised via flyers and the Water Safety Coalition activities.
- ➜ The Northwestern Water Safety Coalition continues to meet to develop materials and conduct water safety campaigns. This Coalition is a group of concerned citizens and representatives from water-related organizations working toward water safety awareness and drowning prevention. Members are from Six Rivers National Forest, National Weather Service, Humboldt County Sheriff's Marine Patrol, Humboldt State University Activities Program, California Department of Forestry, Redwood National and State Parks, Bureau of Land Management, DHHS Public Health, park rangers and marine equipment suppliers.
- ➜ The team obtained information on other child death review teams who addressed the issue of bath seat safety; most notably, the action by the Sacramento Child Death Review Team, and their efforts with the Consumer Product Safety Commission.
- ➜ A number of team members met during 2007 and 2008 to discuss infant/child water safety and design a brochure. The completed brochure is funded by the Child Health and Disability Prevention Program, and is available in English and Spanish. The brochure has been distributed to hospitals, home visiting programs, medical providers, and family resource centers.
- ➜ Created a brochure on infant water safety that included information on bath seats.

Challenges:

- ✳ Water safety education must continue to stress the importance of adult supervision at all times, whether children are in a bathtub, swimming pool, or at the beach. Instruction must be clear on what adequate "supervision" involves.
- ✳ Funding is limited for airing public services announcements and purchasing life jackets.

Intentional Injury

"'The use of physical force with the intent to inflict injury or death upon oneself or another ."

George Washington University, Department of Emergency Medicine

Suicide

According to the Children's Safety Network, suicide is the sixth leading cause of death for 5 to 14-year-olds and the third leading cause of death for youth between the ages of 10 and 24 years of age. Parents, health and human service providers and educators in Humboldt County are challenged to deal with this serious health problem. While research continues to uncover causes and strategies, suicide is often difficult to talk about, limiting information and communication.

During this report period, the team reviewed two cases of youth suicide. Team reviews can sometimes shed light on possible interventions or identify risk factors, but the complexity of a suicide can make it difficult to identify solutions. Case information points to the impulsive nature of youth and the role the internet plays in the lives of young people. Some youth are using social networking sites to communicate not only their feelings, but their intention to harm themselves. It is difficult to monitor such postings, but youth need to be encouraged to share their concerns when they know of peers who might be at risk. All young people need a safe place to talk with each other, as well as with adults. Parents who wish to obtain mental health or other services for their child often face transportation and financial issues, making it difficult for them to access needed resources. These multi-layered issues challenge the development of recommendations and effective community interventions.

Some facts on youth suicide from the website www.Suicidology.org:

- Research shows that most adolescent suicides occur after school hours and in the teen's home.
- Not all adolescent attempters may admit their intent. Therefore, any deliberate self-harming behaviors should be considered serious and in need of further evaluation.
- *Most* adolescent suicide attempts are precipitated by interpersonal conflicts. The intent of the behavior appears to be to effect change in the behaviors or attitudes of others.
- For every completed suicide by youth, it is estimated that 100 to 200 attempts are made. According to the 2007 Youth Risk Behavior Survey report:
  - 14.5% of students, grade 9-12, reported that they had seriously considered suicide in the previous 12 months.
  - 6.9% of students reported making at least one suicide attempt in the previous 12 months.
  - 2.0% of students reported making at least one suicide attempt in the previous 12 months that required medical attention.

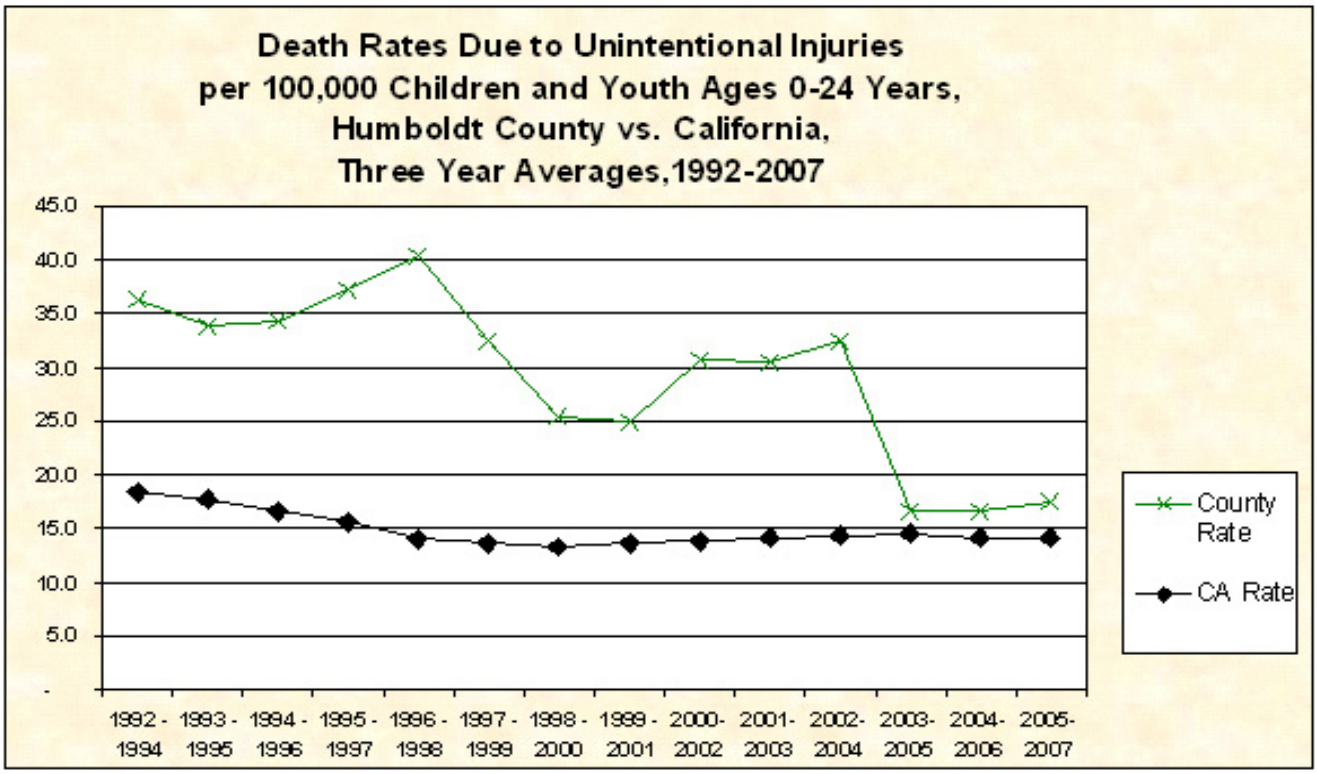
The Humboldt County Department of Health and Human Services is currently accessing Mental Health Services Action Prevention and Early Intervention funding to develop its Suicide Prevention Program. This work is funded through Mental Health Services Act Prevention and Early Intervention monies. The program focuses on four strategic directions outlined by the California State Strategic Plan on Suicide Prevention.

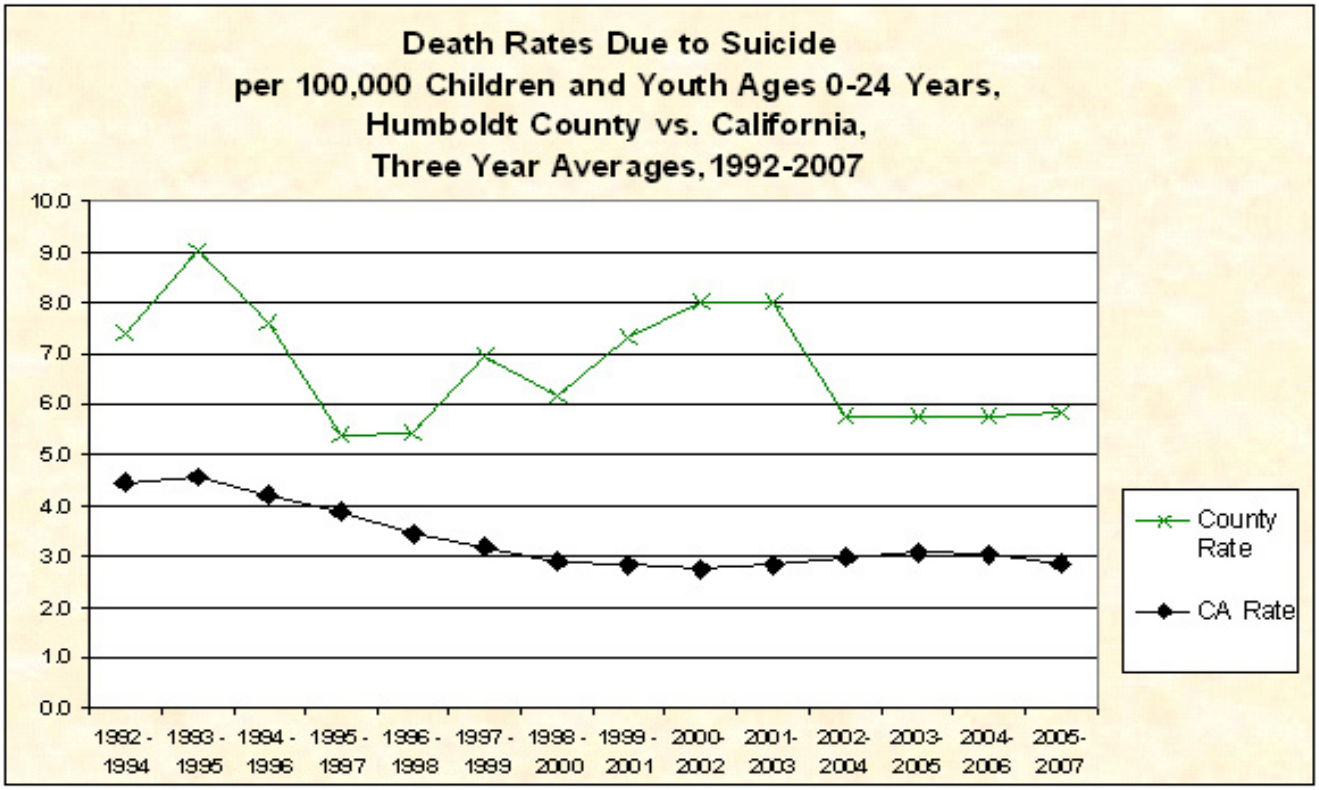
These directions are:

1. Develop and maintain a system of suicide prevention
2. Implement training and workforce enhancements to prevent suicide
3. Educate communities to take action to prevent suicide, and
4. Improve suicide prevention program effectiveness and accountability

Some activities include providing community-wide suicide prevention gatekeeper trainings, outreach and awareness education.

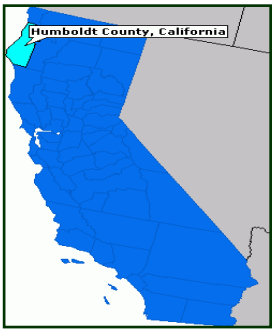
Additional Death and Injury Data





APPENDICES

Humboldt County Community Profile



Geographic Features: Humboldt County is one of California's most rural counties. Located in far northern California, it is six to seven hours by car from the nearest major urban areas of San Francisco and Sacramento. The County is bound on the north by Del Norte County, on the east by Siskiyou and Trinity counties, on the south by Mendocino County and on the west by the Pacific Ocean. The County encompasses 2.3 million acres, 80 percent of which is forestlands, protected redwoods and recreation areas**.** In landmass it is one of the largest of California counties, about the size of Rhode Island.

In terms of population, Humboldt County ranks 35th of 58 counties in the State. The Department of Finance estimated the 2008 population at 132,821 with 71,540 (53 percent) of residents living in outlying, unincorporated areas. The cities of Eureka and Arcata together contain about 33 percent of the County's population, while 13 percent of the population is scattered among five other incorporated cities. *(Source: CA DOF, E-4; Population Estimates for Cities, Counties and State, 2001-2008.)*

Historically, the lumber and wood products industry, together with the fishing industry, has dominated Humboldt County's resource-based economy. However, there has been a shift toward occupations in education, trade, transportation and utilities, and hospitality industries. In addition, Humboldt County has a higher percentage of government workers than most counties, with government providing 28 percent of all county employment. As of 2005 major employers include the County of Humboldt and City of Eureka, Humboldt State University and College of the Redwoods, The Pacific Lumber Company, St. Joseph Health System and Mad River Hospital, and Eureka City Schools.

Population Demographics: Humboldt County's population is slowly growing, and the trend is towards greater racial and ethnic diversity, with minorities being the fastest growing population groups. The Native American population comprises **six** percent of the total population, compared to **one** percent statewide. The growing Hispanic population accounts for eight percent of the population, up from 4.1 percent in 1990. *(U.S. Census Humboldt County QuickFacts.)* The trend in births is even more striking—**15.8** percent Hispanic and 10.5 percent Native American in 2008. *(Automated Vital Statistics System, Birth Records)*

Patrick's Point Beach, Trinidad, CA
Photo by Justin Gould

Humboldt County Racial and Ethnic Distribution of Population and Births 1990 and 2008

Racial/Ethnic Group	Percent of County Population 1990	Percent of Births 1990	Percent of County Population 2008*	Percent of Births 2008
White, non-Hispanic	88.5	82.3	86.3	69.4
Hispanic	4.1	3.5	8.4	14.7
Native American	5.5	8.6	6.3	10.5
African American	0.8	1.0	1.1	1.3
Asian/Pacific Islander	1.9	4.4	2.0	3.2

Healthy People 2010 Objectives Compared to Humboldt County Rates for 2006-2008

	HEALTHY PEOPLE 2010	HUMBOLDT COUNTY RATE 2006-2008
Infant Mortality Rate	4.5	6.2
Neonatal Mortality Rate	2.9	2.9
Postneonatal Mortality Rate	1.2	3.5
Fetal Death Rate	4.1	3.6
SIDS	.25	*
Early Entry to Prenatal Care	90%	78.0
Early & Adequate Prenatal Care	90%	71.1**
Low Birth Weight	5%	5.9
Very Low Birth Weight	0.9	0.8
Primary C-Section	15%	15.4

Note: Mortality rates are per 1,000 live births with the exception of the SIDS death rate
*Humboldt County had six SIDS deaths from 2004-06. These numbers are too small to provide a stable rate.
** Three-year average 2005-2007