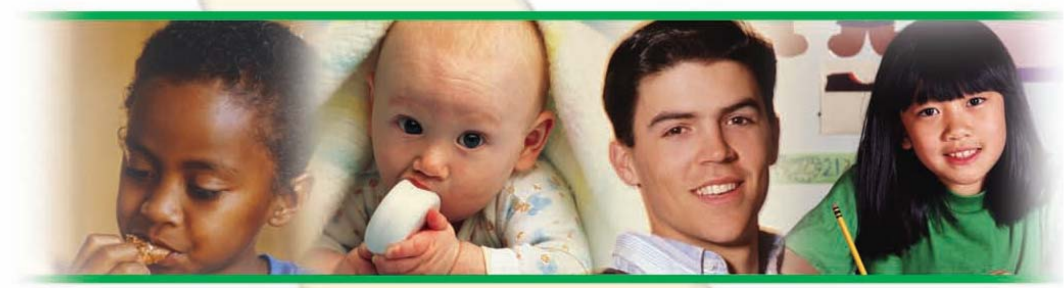
Consolidated Annual Report for Fiscal Year 2008 and Fiscal Year 2009

Delaware

Preventing Child Deaths in the First State



Child Death, Near Death and Stillbirth Commission

Safety and security don't just happen; they are the result of collective consensus and public investment. We owe our children, the most vulnerable citizens in our society, a life free of violence and fear.

Nelson Mandela
Former president of South Africa

Due to fiscal constraints in the State of Delaware, the *Fiscal Year 2008 and Fiscal Year 2009 Child Death, Near Death and Stillbirth Commission ("CDNDSC") Annual Report* has been distributed through electronic email and computer disc distribution. This effort will both save taxpayer dollars and help reduce the State's environmental footprint.

Copies of the Annual Report are available online at the CDNDSC website[1].

[1] http://courts.delaware.gov/childdeath/reports.htm

STATE OF DELAWARE
CHILD DEATH, NEAR DEATH AND STILLBIRTH COMMISSION
900 King Street, Suite 220
Wilmington, DE 19801-3341

TO: The Honorable Jack A. Markell
Members of the General Assembly

FROM: Garrett H. C. Colmorgen, M.D.
Chairperson, Child Death, Near Death and Stillbirth Commission

DATE: February 1, 2010

SUBJECT: Fiscal Year 2008 Through Fiscal Year 2009 Child Death, Near Death and Stillbirth Commission Annual Report

I am pleased to present to you the Seventh Annual Report of the Delaware Child Death, Near Death and Stillbirth Commission. The Report provides a summary of the work of the Panels and Commission during fiscal years 2008 and 2009. As the State of Delaware continues to face economic hardships, the Commission would like to thank you for your commitment and continued investment in children and families.

The Commission's goal has always been a reduction in child deaths and child near deaths in Delaware. This annual report will be different from the previous annual reports in that it includes more than data and recommendations. In addition, this report will highlight the prevention initiatives that the Commission has undertaken. The Commission has accomplished much in a short period of time. However, the Commission is aware that much remains to be accomplished on behalf of children. The Commission stands ready to contribute to the reduction of infant mortality and child deaths in the State of Delaware.

GHCC/amp
Enclosure

"We ourselves feel that what we are doing is just a drop in the ocean.
But the ocean would be less because of that missing drop."

Mother Teresa

EXECUTIVE SUMMARY

The Child Death, Near Death and Stillbirth Commission (CDNDSC or Commission) was established in 1995, with the mission of safeguarding the health and safety of children in Delaware as set forth in 31 *Del. C.* § 320-324.

Multi-disciplinary Child Death Review Panels and Multi-disciplinary Fetal Infant Mortality Review (FIMR) Case Review Teams (CRTs) met from September to May each year to conduct a retrospective review of the history and circumstances surrounding each child's death or near death in Delaware. During this period, 80 death cases and 20 near death cases were reviewed by the Child Death Panels. Fifty-two infant cases were reviewed by a medical abstractor for purposes of fulfilling the statute (as mandated prior to FIMR). These cases were pre-FIMR and had not yet been reviewed. The work of the dedicated Child Death Panels and CRTs can best be reflected in the recommendations and prevention initiatives portions of this annual report. Since becoming fully staffed in 2006, the Commission has seen positive action and outcomes in a relatively short interval. CDNDSC believes that every child deserves a tomorrow and that is the driving force behind the Commission's passion and efforts.

From this report, the Commission has drawn the following conclusions:

- FIMR CRTs have reviewed 136 cases since April 2007. These cases comprise 70 fetal deaths and 66 infant deaths. The top five issues identified through FIMR:
    1. Pre-existing medical conditions
    2. Medical and social services/community resources available but not used
    3. Obesity/nutrition
    4. Preterm labor
    5. Bereavement counseling/support
- African Americans make up 19% of Delaware's population. However, African American children disproportionately represent 40% of all deaths that were reviewed by CDNDSC. This percentage has not changed from the *Fiscal Year 2003 through Fiscal Year 2007 Annual Report*. Notable differences by race are highlighted in FIMR Appendix 4 (page 53), which include a higher proportion of black mothers with a history of sexually transmitted diseases, unplanned pregnancy, and use of in vitro fertilization or assisted reproductive technologies. The prevalence of substance abuse and no prenatal care was higher among white mothers.
- Sixty percent of all child deaths due to motor-vehicle crashes occurred in the 15 to 17 year range. This number has not decreased since the previous annual report.
- The Child Abuse and Neglect (CAN) Panel reviewed 5 child deaths and 20 child near deaths that resulted from abuse and neglect. Twenty-six recommendations were put forth by the CAN Panel in support of system change to prevent future child deaths and child near deaths due to abuse and neglect.
- In every infant unsafe sleeping death, the infant was not sleeping in his or her own crib or bed. In 78% of those cases, the infant unsafe sleeping death cases, the child was sleeping with another person.

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PURPOSE OF CHILD DEATH REVIEWS

The Commission provides meaningful system-wide recommendations to prevent the deaths and/or near deaths of children and improve the systems that provide services to children. The process brings professionals and experts from a variety of disciplines together to conduct retrospective case reviews, create multi-faceted recommendations to improve systems, and facilitate interagency collaboration to reduce the mortality of children in Delaware.

BACKGROUND AND ACCOMPLISHMENTS

Delaware's child death review process was established by legislation passed on July 19, 1995, after a pilot project showed the effectiveness of such a review process for preventing future child deaths. The legislation established the Child Death Review Commission, which has the power to create up to three regional Review Panels, establishes confidentiality for the reviews, and provides the Commission with the ability to secure pertinent records. In addition, it provides protection to members of the Commission and regional Review Panels from claims, suits, liability and damages, and any other recourse, civil or criminal.

The Commission has established three panels. The New Castle and Kent/Sussex Review Panels review all non-child abuse or neglect deaths. The Child Abuse/Neglect Review Panel reviews deaths and near deaths due to child abuse/neglect statewide. Each of the three panels conducts monthly child death reviews. The Commission has met at least quarterly to review and approve the work of the Panels. The CDNDSC statute was amended in 2002, changing the name from the Delaware Child Death Review Commission to the Child Death and Stillbirth Commission. Another significant legislative change in 2002 added the expedited review process for child death due to abuse and neglect. Deaths involving abuse and/or neglect are reviewed within six months (this timeframe was a statute change in FY08) [2] of a report to the Commission, notwithstanding unresolved criminal charges.

In 2004, the statute was amended a second time to change the Commission's name to the Child Death, Near Death and Stillbirth Commission, among other updates. For instance, the scope of infant review was changed from 27 weeks' gestation to 20 weeks' gestation. Also, the statutory change required the Commission to investigate and review all the facts and circumstances of the death or near death[3] of an abused and/or neglected child within three months of notification of said child. The amended statute also required that system-wide recommendations arising from an expedited review of a death or near death due to child abuse or neglect be made to the governor and General Assembly, as well as any members of the public requesting the recommendations, within 20 days of the completion of such investigation and review. In addition, the chair of the Child Protection Accountability Commission (CPAC) was added as a member of the CDNDSC and it was legislated that the two Commissions would meet at least annually to discuss recommendations and system improvements. Finally, a fiscal note was attached to the 2004 legislation in order to fund three staff positions dedicated to supporting the Commission.

In fiscal year (FY) 2005, CDNDSC worked in collaboration with the Division of Public Health (DPH) to implement a Fetal Infant Mortality Review (FIMR) pilot project under the leadership of the Governor's Infant Mortality Task Force. In FY2006, FIMR's budgetary positions were placed with the CDNDSC. These three positions include a registered nurse III (FIMR Program coordinator), senior medical social worker, and an administrative specialist.

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[2] HB 478, Signed by the Governor 7/16/08. "Amend Title 31, § 323 (e) by inserting "6 to 9 months" in place of "3 to 6 months" in the last sentence.

[3] Near death is defined as a child in serious or critical condition as a result of child abuse or neglect as certified by a physician.

The most significant accomplishment for FY2007 was the full implementation of the Fetal Infant Mortality Review Process. The bi-annual joint reviews with the Domestic Violence Coordinating Council's Fatal Incident Review Team began in April 2007. The cases reviewed involved child deaths and near deaths with domestic violence as a significant risk factor in the death or near death.

During FY2008, the CDNDSC statute was altered to include Maternal Death Review and allow for public disclosure of deaths and near deaths due to abuse and neglect, after prosecution, to fulfill the federal CAPTA statute mandate.[4]

PREVENTION INITIATIVES AND EDUCATION

Protecting Delaware's Children Conference

The CDNDSC sponsored, together with the Child Protection Accountability Commission (CPAC), a multidisciplinary conference in May 2008. The title of the conference was *Protecting Delaware's Children*. This two-day conference was geared toward the multi-disciplinary team professional involved in law enforcement, investigation, child fatality review, prosecution, treatment, and the prevention of child abuse. This conference was a great success, with more than 400 participants, including judges, attorneys, advocates, service providers, law enforcement officials, medical providers, and others. The 400 participants who attended the *Protecting Delaware's Children* conference were afforded opportunities to learn, share, and grow along with representatives from every child welfare discipline in Delaware during the 25 workshops offered. Of those speakers imparting their research, wisdom, and insights through the conference workshops, almost half were national experts in their field, with the balance being Delaware's experts in the First State's child welfare system. The pairing of the national and local perspectives fostered information sharing, collaboration, and ingenuity over the course of the two-day conference.[5]

Abusive Head Trauma Program

After CDNDSC reviewed 13 deaths and near deaths involving abusive head trauma, the need for preventive parent education on abusive head trauma was demonstrated. CDNDSC partnered with Prevent Child Abuse Delaware to form a comprehensive Parent Education Abusive Head Trauma Program. After review of

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[4] The federal Child Abuse Prevention and Treatment Act requires the disclosure of facts and circumstances related to a child's near death or death. 42 *U.S.C.* § 5106 a(b)(2)(A)(x). See also 31 *Del. C.* § 323(a).

[5] *CPAC Fiscal Year 2008 Annual Report*

nationwide parent education programs, Delaware selected an evidence-based model[6] from Pennsylvania. When replicated in other states, this program has demonstrated a reduction in the number of infant abusive head trauma cases. The Delaware program was made possible by a grant from AstraZeneca.

The Delaware program has a nurse educator train all of the nursing staff in the birthing hospitals within the state. After training, the hospital nursing staff will show each mother and father or significant other a 10-minute DVD before they are discharged from the hospital. The DVD shows a father who becomes overwhelmed by his baby's crying and shakes the baby. The results of shaking a baby are listed and include the possible outcomes of death for the baby and arrest for the father. After watching the DVD, the parents will sign a form stating that they watched the DVD and have the voluntary opportunity to list their phone number for a follow-up phone call, which is made by a social worker six to seven weeks after the baby is born. If the parent needs additional support at the time of the phone call, appropriate referrals and resources will be given to the parent. This six- to seven-week period has been shown to be the peak of an infant's crying and, by extension, the timeframe of greatest risk for abusive head trauma.

Prevent Child Abuse Delaware will complete the research gathered from the initial follow-up phone calls to determine the efficacy of the program. If a child has been abused, this will be reflected through medical record abstraction by CDNDSC at the Child Abuse and Neglect Panel. This training will be implemented in the fall of 2009.

Child Abuse Identification and Reporting Guidelines for Delaware Medical Providers

In FY2009, CPAC's Abuse Intervention Subcommittee, through its Medical Subcommittee, finalized the development of and launched its training program *Child Abuse Identification and Reporting Guidelines for Delaware Medical Providers*. This training was developed as a direct result of 11 cases of death and near death in which medical providers saw the child prior to the death or near death and failed to diagnose and/or report child abuse and neglect.

The inaugural training was co-presented by a local physician and a Division of Family Services (DFS) staff member with great success on March 24, 2009, at Kent General Hospital to doctors, nurses, and social workers. CDNDSC, the training facilitator, has received a small grant to facilitate ongoing training throughout the state. In FY2010, CDNDSC hopes to continue to schedule most hospitals and private family practices for this training.

Fetal Infant Mortality Educational Opportunities

The 6th National FIMR Conference was held from August 2–4, 2007, in Arlington, Virginia. The theme of the conference was "*From Community Up: Using FIMR to Shape Our Future*". The conference program featured many different strategies to enhance learning and included hands-on pre-conference workshops, plenary sessions, concurrent sessions, problem-solving roundtables, and a poster presentation. The concurrent sessions were organized into two tracks. The basic track was for new FIMR programs, and the advanced track targeted the interests of experienced FIMR programs. The Delaware CDNDSC executive director, FIMR Program coordinator, and the senior medical social worker attended the conference. Since Delaware's FIMR Program had just begun, this conference allowed the staff to learn about FIMR programs across the nation and to network with colleagues to implement a successful program in Delaware.

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[6] Awareness, education, and prevention programs shall be offered in all birthing centers and hospitals to every parent, upon the birth of a child. Consideration should be given to the outreach education program developed by Dr. Mark Dias, a pediatric neurosurgeon in Pennsylvania. The Pennsylvania Shaken Baby Syndrome Prevention and Awareness program provides consistent Shaken Baby Syndrome education to parents upon the birth of their child in 100% of Pennsylvania's birthing hospitals. (Recommendation from the Steve and Karen Green CPAC Near Death Report)

On October 29 and 30, 2008, FIMR staff and the Delaware CRTs were trained by Laurie Lee, RN, who developed the clinical and administrative content, layout, and functionality specifications for the Baby Abstracting System and Information NETwork (BASINET). BASINET serves as a Web-based project management system for FIMR in several states, including Delaware. She also has more than nine years' experience as one of Florida's FIMR program coordinators.

The FIMR staff had the opportunity to work with Ms. Lee on basic and advanced functions of BASINET, utilizing hands-on training and a mock case review. This training enabled the CRTs and FIMR staff to use the program more efficiently during and after CRTs to maximize opportunities to analyze Delaware's data, trends, and outcomes.

Suicide Prevention Training

CDNDSC staff helped develop and staff the *Golden Link: Creating Pathways for Survival Through a Lifetime* Suicide Prevention Conference in both 2008 and 2009. The Delaware Suicide Prevention Coalition developed this conference, which was sponsored by the Mental Health Association of Delaware. The purpose of this prevention conference was to bring together people from the community and professionals with the common goal of reducing suicide in the State of Delaware. CDNDSC staff participates on this much-needed Delaware Suicide Prevention Coalition and also on the Youth Suicide Subcommittee led by the Office of Early Intervention and Prevention since it reviews youth suicides as part of its statutory mandate. In FY2008 and FY2009, three youth suicides were reviewed. While tragic, this number has significantly decreased over the last several years.

Collaborative Initiatives

Child Protection Accountability Commission (CPAC)

The CDNDSC and CPAC continued their collaborative affiliation throughout FY2008 and FY2009. Meetings with CPAC occur semi-annually, and the two groups have examined the progress made by the action groups and/or subcommittees on the four core areas identified by the Joint Commissions in FY2006:

- Caseloads/Workloads
- Child Abuse, Neglect, and Dependency Standardized Definitions
- Infant Safe Sleeping Practices
- Multidisciplinary Use of History in Decision Making

The Joint Commissions continue to utilize the Compilation of Child Death and Child Near Death Recommendations to focus efforts where prevention and system change is needed the most. This spreadsheet, developed by the Office of the Child Advocate, includes public recommendations from 1997 to 2009 from child deaths or child near deaths due to abuse and neglect. The Commissions, based upon the recurrent theme in child welfare recommendations in Delaware, staunchly supported the development of training for medical providers on child abuse identification and reporting in Delaware. The Joint Commissions have also resolved to tackle the need for a more effective and efficient risk assessment tool for Delaware's child welfare system.[7] This newly formed subcommittee will begin its important work in FY2010. The Risk Assessment Subcommittee was developed after 27 recommendations from child deaths citing Delaware's current risk assessment tool as being inadequate for protecting children from abuse/neglect.

[7] *CPAC Fiscal Year 2009 Annual Report*

Caseloads/Workloads[8]

The mission of the Caseloads/Workloads Subcommittee was to evaluate the workloads of DFS workers and provide recommendations to CPAC for change, as appropriate. In so doing, the subcommittee reviewed the workloads of the courts, the Department of Justice, OCA, and others. The subcommittee has considered, among other things:

- A local workload study
- The DFS portal of entry for acceptance and investigation of cases
- The transfer of DFS cases where specialized treatment is needed

The Caseloads/Workloads Subcommittee examined ways in which a workload study could be completed in Delaware to determine not only what the current child protective workload is, but also how many hours are required to manage a case per month. After consulting with several states about their workload studies, the group concluded that the resources needed for a comprehensive study of the type conducted in other states were not available in Delaware. As an alternative, the subcommittee adapted a 2004 Delaware caseworker time allocation study and workload studies from other states to approximate the workload and the time needed per month to manage both an investigation case and a treatment case. Given this data, along with information on the impact of federal and state mandates that have targeted child safety, permanency, and well-being, the subcommittee recommended that investigation caseloads be set no higher than 11, and that treatment caseloads be set at 12. These standards required the addition of 31 new treatment positions, but no new investigation positions, at current workload levels.

The Caseloads/Workloads Subcommittee also researched how other states handle the portal of entry for referrals. The research indicates that Delaware is in the top tier of states in terms of the percentage of total reports accepted for review, which the group determined to be of importance in monitoring child safety in Delaware. Narrowing the portal of entry for acceptance and investigation of cases by DFS was determined not to be in the best interests of Delaware's children. After considering the workload study and the portal of entry, the subcommittee issued an interim report to support legislative action. It then began considering privatization of child welfare services and the workloads of other system partners.

The work of the subcommittee culminated in the introduction of Senate Bill 113 (SB 113) in June 2007. As originally introduced, SB 113 sought to reduce investigation caseloads from 14 to 11 with no fiscal impact and to reduce treatment caseloads from 18 to 12 with a fiscal note of $692,800 in FY2008 and $1,774,700 in FY2009. As a result of the fiscal impact, the bill provided a three-year phased-in fiscal plan, which was consistent with federal and state mandates for safety, permanency, and well-being. The plan would also allow for privatization, if determined appropriate, rather than requiring an increase in state positions. With Delaware's current tight fiscal climate, SB 113[9] passed with an amendment removing the reference to treatment caseloads (and hence the fiscal impact). The bill, as adopted, successfully lowered investigation caseload standards from 14 to 11 as of July 24, 2007. The February 26, 2007, Interim Report of the Caseloads/Workloads Subcommittee can be found at the website listed below[10].

Child Abuse, Neglect and Dependency Definitions[11]

The first near death report, issued by CPAC in 2005, included a recommendation that the statutory definitions of neglect be reviewed and standardized throughout the Delaware Code, and a recommendation that history be included as a basis for findings of abuse or neglect. The Definitions Subgroup was created to

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[8] *CPAC Fiscal Year 2007 and 2008 Annual Report*
[9] http://legis.delaware.gov/LIS/lis145.nsf/vwLegislation/SB+113/$file/legis.html?open
[10] http://courts.delaware.gov/childadvocate/pdf/cpaccaseloadreport022607.pdf
[11] *CPAC Fiscal Year 2007 Annual Report*

address these objectives as well as to standardize the definitions of abuse and dependency. In the course of its work, the group looked at the wording of each definition and sought to define other terms such as care, custody and control, exploitation, mistreatment, maltreatment, sexual abuse, and emotional abuse, all as they relate to acts committed against children. The result of the extraordinary effort of the Definitions Subgroup was House Bill 266[12] .

Among the highlights of the legislation are provisions allowing for consideration of history when making a determination as to whether a child is dependent or neglected. Further, the definition of "neglect" allows for findings of neglect based on chronic and severe abuse of alcohol, with an exception built in for those who are compliant with treatment. Lastly, the term "adequate care" was replaced with "necessary care," although the definition remains the same. The subgroup's work has concluded, but its impact will be far reaching. Consistent and uniform definitions eliminate confusion about the magnitude of child maltreatment and allow for the collection of data that better gauges the scope of the problem and the effects of prevention and treatment programs.

Multidisciplinary Use of History in Decision Making[13]

The Joint Commission Subcommittee on the Multidisciplinary Use of History in Decision Making was established to address one of the core areas identified by the Joint Commissions. Made up of representatives of numerous system partners, the group quickly discovered that removing the barriers and silos and building upon best practices while also protecting individual rights would require intense dedication by smaller, more focused subgroups. Hence, the Chronology of History and the Information Sharing Subgroups were created.

The Chronology of History Subgroup was charged with addressing the need for a comprehensive summary of previous case activity, information about a child, parental history, service provision information, case outcome information, and placement history. The group developed a suggested format for a Family and Child Tracking System (FACTS) event that would be both electronically and manually updated at prescribed points in the life of a case. Such a process would make historical information more accessible, resulting in a greater likelihood that it would be reviewed and utilized by subsequent workers, child representatives, and other decision makers. DFS has incorporated these recommendations into its FACTS II upgrade plans.

The goal of the Information Sharing Subgroup was to develop policy recommendations related to information sharing among entities in order to protect children from abuse and neglect while recognizing the rights of the family and its individual members. The subgroup focused on what information can be shared and is needed to keep children safe, with whom the information can be shared, and the methods for sharing information. Through a review of federal and state laws, as well as agency policies and practices, the subgroup discovered what barriers existed and developed recommendations to address them. A full report on the work of this subcommittee can be found at the website listed below[14]. Since the issuance of this report, several memorandums of understanding have been executed between agencies to improve the exchange of confidential information to ensure child safety.

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[12] http://delcode.delaware.gov/sessionlaws/ga144/chp136.shtml#TopOfPage
[13] *CPAC Fiscal Year 2007 Annual Report*
[14] http://courts.delaware.gov/childdeath/reports.htm

Infant Safe Sleeping Practice Subcommittee

The Infant Safe Sleeping Practice Subcommittee was created in FY2006 after the Commission reviewed 57 infant and child sleep-related deaths during fiscal years 2003–2007. The subcommittee, a community action team, immediately went to work to address this significant problem in Delaware. During July 2007, the subcommittee embarked on a media campaign to increase awareness of safe sleeping practices. This campaign included exterior and interior prevention messages on DART buses throughout the state. CDNDSC received a grant from the Delaware SIDS (Sudden Infant Death Syndrome) Affiliate to fund this campaign. Public service announcements were recorded at no cost from B101 as a community project and sent to the local Delaware Valley radio stations. The executive director of CDNDSC was interviewed for the B101 Women's File segment on infant safe sleeping practices.

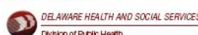
The strong visual images from this campaign led to the development of posters and billboards with the same images. Through collaboration with the Delaware Healthy Mother Infant Consortium and the Division of Public Health, 4,000 posters were developed in English and Spanish and distributed to licensed daycares throughout the state.

DART Bus Media Campaign. From left to right: Suzanne Mooney, design artist, Eggendorf Morrison; Marjorie Hershberger, chair of the Infant Safe Sleeping Subcommittee; Linda Hawthorne, president of the Delaware SIDS Affiliate; and Anne Pedrick, executive director of the CDNDSC

Sleeping With Your Baby Risks Infant Death!

10 Steps to Promote Infant Sleep Safety

1. *Place your baby to sleep on its back for naps and at nighttime, not on its tummy or sides.*
2. *Do not put your baby to sleep on a sofa or bed with others. Your infant should sleep in a crib or bassinet near your bed.*
3. *Use a firm mattress that fits and has no gap between it and the frame of the crib.*
4. *Use the right size fitted sheet for the mattress and tuck blankets in.*
5. *Do not use bumper pads, sleep position wedges, or pillows in the crib.*
6. *Keep toys and fluffy blankets out of the crib while your baby sleeps.*
7. *Make sure your baby's room is in the safe temperature range of 68°F to 75°F.*
8. *Position the crib away from the heat vent.*
9. *Prevent overheating by layering baby's clothes and not overdressing.*
10. *Keep all cigarette smoke away from pregnant women and all babies.*



Child Death, Near Death and Stillbirth Commission

Infant safe sleeping posters

The Commission believes that prevention efforts on the issue of unsafe infant sleeping practices also need to be disseminated at a local, grassroots level. During the past two years, the Commission has participated in seven community events promoting safe sleeping practices for infants. The subcommittee has also developed a training program for professionals, presented the same training session eight times throughout the state to physicians, nurses, social workers, and daycare workers. One training location was at a daycare that had experienced a child death as a result of unsafe sleeping practices. Training is brought to professionals at their place of business and will continue to be provided in FY2010.

Since 1998, through the donation of thousands of cribs, National Cribs for Kids® has been making an impact on the rates of babies dying of SIDS and from accidental suffocation. Cribs for Kids® is a safe-sleep education program to help reduce the risk of injury and death of infants due to unsafe sleep environments. Currently, Cribs for Kids® has 260 partner programs in 43 states throughout the country that provide a Graco Pack 'n Play® crib and educational materials regarding safe sleeping and other important safety tips.

In June 2009, a partnership was developed between the Delaware Division of Public Health, Nemours Health and Prevention Services of the Nemours Foundation (Nemours), and CDNDSC to implement the first Cribs for Kids® program in Delaware. Any mother is entitled to a free crib if she meets the following criteria:

- Is unable to purchase a crib by any other means
- Due to deliver the baby in six weeks
- Has an infant who is younger than six months of age

Nemours has been designated as the nonprofit organization that will be the gatekeeper for the donated funds from the community. CDNDSC will house the cribs for distribution and will continue to partner on events to secure funds for the program. The education will be provided to the family by a Division of Public Health nurse. The preventive part of the program is the education that must be given by the nurse on unsafe sleeping practices for infants. This is an evidence-based program that has had very good outcomes in other states in reducing infant unsafe sleeping deaths and is an excellent example of collaborative partnerships in Delaware on behalf of children. The training and full implementation will start in the fall of 2009. Please see the Cribs for Kids website®[15] for more information.

> Through compelling research by SIDS of Pennsylvania's Cribs for Kids® Program, a safe-sleep environment has been identified as a key factor in reducing the rates of infant death. Babies who sleep in unsafe sleep environments, including adult beds, are at a 40 times greater risk of dying. (www.CribsforKids.org)

Other initiatives of the Infant Safe Sleeping Subcommittee include:

- Participation in the National Center for Child Death Review Subcommittee charged with improving unsafe sleeping criteria in the national data tool database for use on the national website
- Consultation on the *Growing Together* calendars distributed at the birth hospitals by DHSS
- Writing an article for the Delaware Chapter of the American Academy of Pediatrics entitled, "We need to teach more than back to sleep"

Additionally, CDNDSC partnered with A.I. duPont Hospital for Children to implement mandatory education for nursing staff on infant safe sleeping practices.

[15] www.cribsforkidsde.org

Other Partnerships

In FY2008, CDNDSC was invited by a community hospital that had experienced several cases of child deaths and near deaths to participate in its in-house Child Advocacy Committee. The hospital team, comprised doctors, nurses, and risk management staff, met to improve its practices and procedures for handling at-risk families with the Office of the Child Advocate, the Division of Family Services, and CDNDSC. In January of 2008, this community hospital implemented abusive head trauma parent education training for staff and parents. Its initiative has paved the way for other Delaware hospitals to replicate its success. According to CDNDSC records, this hospital has significantly decreased the number of child abuse and neglect deaths or near deaths involving its hospital since this Commission began its work

In further fulfilling its statutory mandate, CDNDSC also actively participated in the following subcommittees:

- CDNDSC Subcommittees
  - FIMR Development Subcommittee
  - Legislative Subcommittee
  - Process Subcommittee
- CPAC Subcommittees
  - Training Subcommittee
  - Abuse Intervention Committee
  - Abuse Intervention Medical Subcommittee
  - Legislative Subcommittee
- Delaware Children's Campaign Infant Mortality Subcommittee
- Delaware Healthy Mother Infant Consortium
  - Data and Science Committee
  - Education and Prevention Committee
  - Disparities Committee
  - Standards of Care Committee
  - Systems of Care Committee
- DFS Program Improvement Plan (PIP) Safety/Investigation Workgroup
- Suicide Prevention Taskforce

CDNDSC Prevention Partners

- Bayhealth Medical Center
- Beebe Medical Center
- Child Protection Accountability Commission
- Christiana Care Health Systems
- Delaware American Academy of Pediatrics
- Delaware Healthy Mother Infant Consortium
- Delaware SIDS Affiliate
- Delaware Suicide Prevention Coalition
- Department of Services for Children, Youth and their Families (DSCYF)
- Department of Justice
- Division of Family Services
- Family Court
- Medical Society of Delaware
- National Center for Child Death Review
- National Fetal and Infant Mortality Review Program
- Nemours Foundation/A.I. duPont Hospital for Children
- Office of the Child Advocate
- Prevent Child Abuse Delaware
- Safe Kids Delaware

THE PATH FORWARD …

- Conduct the first meeting of the Maternal Death Review (anticipated Spring 2010)
- Cosponsor with CPAC and Family Court the Second Joint Conference in 2010
- Continue the Safe Sleeping media campaigns
- Update the CDNDSC Web site
- Provide a comprehensive update to all recommendations made from FY2003 to FY2009
- Sponsor a baby stroller walk/run (May 2010) with Nemours and the Division of Public Health to raise additional funds for *Cribs for Kids*
- Strengthen the CDNDSC recommendation process and follow-up from various agencies
- Strengthen CDNDSC's collaborative partnerships while building new relationships with agencies and organizations
- Train Delaware medical providers on *Child Abuse Identification and Reporting Guidelines*

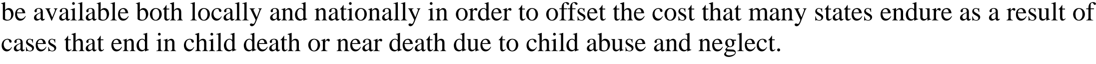
Recommendations for Cases Reviewed During FY2008–FY2009

The Commission shall make recommendations to the Governor and the General Assembly, at least annually, regarding those practices or conditions that influence the mortality of children. Generally, an affirmative vote of 60% of all members of the Commission or any regional panel is needed to adopt any findings or recommendations of the Commission or such regional panel. (70 *Del. C.* 256, § 1.)

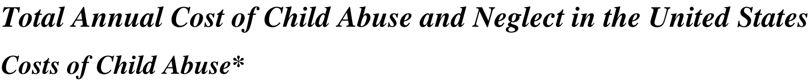
Abuse/Neglect

According to the U.S. Administration for Children and Families, 10,440 children died from child abuse and neglect during the years of 2001–2007. Experts believe that this number is significantly undercounted and there may be several thousand more deaths. This is due, in part, to how the cause of death is coded for child maltreatment deaths.[16] During FY2008 and FY2009, the Delaware Child Abuse and Neglect (CAN) Panel reviewed 5 deaths and 20 near deaths of children. The CAN Panel also jointly reviewed three deaths with the Domestic Violence Coordinating Council's Fatal Incident Review Team. These cases were completed after prosecution and were "final"[17] cases.

As financial stressors continue to plague the American family, Delaware continues to see many deaths and near deaths due to abuse and neglect. With each child death and near death case, an immense burden is placed on the state as well as the nation. Therefore, it is imperative that resources be available both locally and nationally in order to offset the cost that many states endure as a result of cases that end in child death or near death due to child abuse and neglect.



Total Annual Cost of Child Abuse and Neglect in the United States



Costs of Child Abuse*

Direct Costs		
Category	Annual Total	Daily Total
Hospitalization	$6,625,959,263	$18,153,313
Mental Health Care System	$1,080,706,049	$2,960,838
Child Welfare Services System	$25,361,329,051	$69,483,093
Law Enforcement	$33,307,770	$91,254
Indirect Costs		
Category	Annual Total	Daily Total
Special Education	$2,410,306,242	$6,603,579
Juvenile Delinquency	$7,174,814,134	$19,657,025
Mental Health and Health Care	$27,979,811,982	$185,927
Adult Criminal Justice System	$27,979,811,982	$76,657,019
Lost Productivity to Society	$33,019,919,544	$90,465,533

* We Can Do Better, Child Abuse and Neglect Deaths in America (2009) www.everychildmatters.org

16 We Can Do Better, Child Abuse and Neglect Deaths in America (2009) www.everychildmatters.org

17 Cases previously reviewed in an expedited manner after the death or near death must wait until after prosecution to have a "final" review with all information presented.

Who are the perpetrators of these crimes against children?

Typically, the perpetrator of a child death or near death due to abuse or neglect has some or all of these characteristics:

- Is a young adult
- Does not have a high school diploma
- Lives at or below the poverty level
- Has mental health issues
- Has very limited coping skills
- Is often someone who grew up in a violent household

Nationally, most fatalities are caused by the child's father or the mother's paramour.[18] Delaware's data over the last seven years, however, do not follow the national trend. While more males than females caused the deaths or near deaths of Delaware's children, there were still 22 females who were the perpetrators.

When CDNDSC statistically compared Delaware's data to the national trend, it was discovered that Delaware's data do not indicate that the male in the household is always the perpetrator.

When CDNDSC statistically compared Delaware's data to the national trend, it was discovered that Delaware's data does not indicate the male in the household as always being the perpetrator.

Perpetrators of Death/Near Death Due to Abuse and Neglect in Delaware (FY03 to FY09)

Mother	20	Father	20
Father's Paramour	1	Mother's Paramour	5
Foster Mother	1		
	22		25

The following recommendations were submitted to and approved by the Commission from the various panels that reviewed child abuse and neglect deaths and near deaths. These recommendations have been added to the "compilation" and several have had action steps taken.

Division of Family Services (DFS)

1. The Office of Child Care Licensing and its advisory board should review best practices nationwide and implement enforcement and sanctioned procedures that increase child safety in daycares. (FY09)

2. CDNDSC recommends that there be coordination between the Children's Department and the Department of Corrections to explore the potential for coordination to ensure the safety of children when perpetrators of child abuse are released from prison. (FY09)

3. Recommends that greater weight be given to child abuse hotline calls made by medical professionals. (FY09)

4. CDNDSC recommends that the Office of Child Care Licensing distribute educational information to all childcare facilities regarding the signs and symptoms of head trauma. (FY09)

[18] U.S. Advisory Board on Child Abuse and Neglect, 1995.

Family Court

5. Family Court Judicial officers should give greater consideration to the request of a no-contact order when a non-relative is the alleged perpetrator. It is recommended that domestic violence be a component of Judiciary training. (FY08)

6. The Superior, Family, and Court of Common Pleas Courts should not dismiss a case of domestic violence at the first hearing due to a victim's failure to appear to testify at trial against the perpetrator. If possible, the case should proceed and be based on evidence and testimony of professionals attending the hearing. If a judicial officer determines that it is not appropriate to go forward, a continuance should be granted to secure the attendance of the victim/witness. This decision is especially significant when a child is present to witness the alleged abuse. Attempts should be made to not re-victimize a domestic violence victim by issuing a *capias* for their arrest. (FY08)

Law Enforcement Agencies

7. Referral to New Castle County Police Department to review policies/protocols for interactions with families in distress who have multiple interactions with police so that proper referrals to DFS may be made when children in the residence are involved. Two issues to specifically review include use of history and reporting to DFS. (FY08)

8. This recommendation was stated in a previous near death report completed by the Child Protection Accountability Commission (CPAC).[19] The investigating law enforcement officer shall continue the current practice of scheduling an intake for any case concerning a child if the allegation involves:

   a. Any felony

   b. Any sex offense

   c. The death of a child if a police investigation is being conducted, if the death is suspicious, or appears to have been caused by Sudden Infant Deaths Syndrome or suffocation

   d. Any misdemeanor involving a child age 12 or younger if the child suffered any kind of physical injury that required any kind of medical treatment and if the injury was allegedly caused by an act of abuse or neglect committed by a parent, relative, or any temporary or permanent caregiver or custodian; or

   e. Endangering the Welfare of a Child pursuant to 11 *Del. C.* § 1102(a)(1) involving a child age 12 or younger, regardless of whether the child was injured, if the child was exposed to a risk of injury or death.

   f. An intake should be done on cases that meet one or more of the criteria outlined above within five days of any arrest or before the case is cleared without an arrest. If possible, the investigating officer shall inform the DFS caseworker of the date, time, and location of the intake appointment. (FY08)

[19] CPAC Near Death Report on Steven and Karen Green, June 12, 2007.

The single best predictor of child abuse and neglect is poverty
America's Children, How Are they Doing? (2005)
http://americanhumane.org/about-us/newsroom/factsheets/americas-children.html

Legal/Legislative

9. CDNDSC supports the Department of Justice's draft legislation to increase the penalty for those who fail to report child abuse and to change it from a criminal to civil penalty. (FY09)

Medical Community

10. CDNDSC supports improving the technology for medical record keeping, including electronic date and time stamp for each entry. (FY09)

11. CDNDSC supports the efforts of Bayhealth and Prevent Child Abuse Delaware as they improve the education of Shaken Baby Syndrome. (FY09)

12. CDNDSC shall send a letter to the Delaware Chapter of the American Academy of Pediatrics and the Delaware Academy of Family Practice Practitioners requesting that they include educational components in their newsletters to ensure that community physicians are aware that there are systems of care for educating and offering resources for parents on the risks of leaving their child with non-blood relative caretakers. (FY09)

13. CDNDSC supports the Nurse Family Partnership and will continue to partner with Children and Families First as the program is implemented. (FY09)

14. CDNDSC shall send a letter to specific hospitals suggesting that they comply with the American Academy of Pediatrics guidelines for acute life threatening event assessments. (FY09)

15. CDNDSC will send a letter to the Medical Society of Delaware to offer more educational opportunities to practitioners regarding psychotropic medication during pregnancy and lactation. (FY09)

16. CDNDSC shall refer the physician involved in the present case to the Board of Medical Practice to review the physician's practice as it pertained to this case. (FY09)

17. CDNDSC shall send a letter to the Delaware American Academy of Pediatrics in support of the present guidelines that infants shall be seen by a physician within 48 to 72 hours of discharge following birth. (FY09)

18. CDNDSC shall send a letter to the medical community to encourage timely referrals of high-risk infants born prematurely, regardless of birth weight, to the Child Development Watch Program. (FY09)

19. CDNDSC suggests use of the Delaware Health Information Network and further enhancement of such for every emergency room to help determine when a child has had several admissions. (FY09)

20. CDNDSC staff shall send a letter to the specific hospital involved in this incident as well as all emergency departments, emergency clinics, and risk managers reminding them of the mandatory reporting statute.[20] (FY08)

Multi-Disciplinary Reporting and Investigation of Child Abuse and Neglect

21. CDNDSC recommends that the Mandatory Reporter training stress:

    a. That medical providers use clear language when reporting suspected abuse/neglect as those taking the reports are not trained medical professionals, and

    b. That medical professionals receive information as to what can be expected in terms of follow up to the caller once a report is made. (FY09)

22. CDNDSC supports the creation of additional public service announcements regarding the mandatory reporting of child abuse requirements. (FY09)

23. The local hospitals should require that individuals suspecting abuse/neglect must report to the child abuse reporting line. Hospitals need to review their policy to ensure that it complies with the statute. This requirement should be posted for employees and it should be documented that they have received a copy of the statute. [21] (FY08) A policy does not have the ability to relieve a person of their statutory responsibility. Pursuant to 16 *Del. C.* § 903,

    "any physician, and any other person in the healing arts, including any person licensed to render services in medicine, osteopathy, dentistry, any intern, resident, nurse, school employee, social worker, psychologist, medical examiner or ***any other person*** who knows or in good faith suspects child abuse or neglect shall make a report in accordance

[20] 16 *Del. C.* § 903 and 914
[21] *Id.*

with § 904 of this title. In addition to and not in lieu of reporting to the Division of Family Services, any such person may also give oral or written notification of said knowledge or suspicion to any police officer who is in the presence of such person for the purpose of rendering assistance to the child in question or investigating the cause of the child's injuries or condition."[22]

Penalties for non-reporting, pursuant to 16 *Del. C.* § 914, are as follows: "Whoever violates § 903 of this title shall be liable for a civil penalty not to exceed $5,000 for the first violation, and not to exceed $50,000 for any subsequent violation. In any action brought under this section, if the court finds a violation, the court may aware costs and attorneys' fees.[23]

Well-Being and Prevention

24. Based on community behaviors that could minimize and/or prevent another near death, the Panel recommends a community outreach effort to educate parents on keeping their child safe while in the care of a babysitter. (FY09)

25. The Office of Highway Safety should review the number of pedestrian fatalities at the location involved with this child's death and address as appropriate. (FY08)

26. CDNDSC will contact the Office of Highway Safety (OHS) for further information and statistics regarding pedestrian jaywalking. (FY08)

27. CDNDSC shall partner with the Department of Education and other applicable state agencies to develop/expand a curriculum on caring for newborns regarding the dangers of Shaken Baby Syndrome. (FY09)

Drowning/Pool Safety

During fiscal years 2008 and 2009, the Commission reviewed a total of seven deaths due to drowning. Of those, three deaths were in a pool, one death was in a hot tub, and three were in a bathtub. The dominant theme throughout these deaths is that in four of the seven deaths, the child was not supervised and parental supervision was needed. Proper supervision of children is the best way to prevent a child from drowning.

The Commission has made the following recommendations to prevent child drowning:

1. Incidents of drowning and near drowning should be reported to the Division of Public Health (DPH) per regulation 26.711[24] governing public pools. DPH may want to review this regulation for any necessary updates. (FY08)

2. Memorandums of understanding provide for appropriate notification of agencies in the event of a drowning incident. The responding agency should determine whether the lack of reporting is a personnel performance issue or an agency-wide concern and provide training accordingly. (FY08)

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[22] 16 *Del. C.* § 903
[23] 16 *Del. C.* § 914
[24] DPH Regulation 26.711, *Injury, Resuscitation or Death* – The Division shall be notified within twenty-four (24) hours of any incident at a pool which: requires referral to a hospital, doctor, or other facility for medical attention; requires resuscitation; or results in death. The notification shall be followed up by a written report within thirty (30) days that contains all pertinent details of the incident. http://www.dhss.delaware.gov/dph/hsp/files/spandsregs.pdf

- Pool submersions involving children happen quickly. A child can drown in the time it takes to answer a phone. Seventy-seven percent of the victims had been missing from sight for 5 minutes or less.
- A child drowning is a silent death. There is no splashing to alert anyone that the child is in trouble.

At the time of the incidents, most victims were being supervised by one or both parents. Forty-six percent of the victims were last seen in the house, 23% were last seen in the yard or on the porch or patio, and 31% were in or around the pool before the accident. In all, 69% of the children were not expected to be at or in the pool, yet they were found in the water. (http://homeparents.about.com/od/familyhealth/a/pool_safety_2.htm)

Drowning Prevention Suggestions

- NEVER leave a baby alone in a bathtub even for a second. Always keep the baby in arm's reach.
- NEVER leave young children alone or with young siblings in a bathtub even if you are using a bath seat or ring. Children can drown quickly and silently.
- Keep the toilet lid down, and keep young children out of the bathroom when unsupervised. Consider placing a latch on the bathroom door out of reach of young children.
- Be sure all containers of liquids are emptied immediately after use. Do not leave empty containers in yards or around the house where they may accumulate water and attract young children.
- Always secure the safety cover on your spa or hot tub

Motor Vehicle Crashes

The Commission reviewed 22 deaths of children due to motor vehicle crashes during the time period of this report. Of those, 13 children (60%) were between the ages of 15 and 17 years. Male deaths occurred in 13 out of the 22 motor vehicle crashes, and 18 of the children were Caucasian. Nineteen of the motor vehicle crashes occurred in a rural or suburban setting. Four of the deaths were child pedestrians hit by a motor vehicle. Thirteen of the drivers were between the ages of 14 and 21 and were responsible for causing the incident. Five of those were alcohol and/or drug impaired. Three of the children did not possess a license, and two were violating the graduated licensing rules. The most common theme with the aforementioned male adolescent deaths involved aggressive driving and high rate of speed.

Nationally, adolescent drivers are at a higher risk for motor vehicle crashes that result in injury and death. Motor vehicle crashes make up one in three teen deaths.[25] The State of Delaware needs to continue monitoring driving laws as they pertain to children. Some states with tougher laws have seen a decrease in teenage driving deaths. The CDNDSC will support statutory changes that demonstrate a decrease in child deaths that are a result of motor vehicle crashes.

The Commission has made the following recommendations to prevent motor vehicle deaths:

1. CDNDSC shall partner with other agencies to explore teen motor vehicle crashes to include such factors as technology, speed, etc. (FY09)

2. CDNDSC shall request that the Office of Highway Safety review and consider increasing the fines and penalties for improper vehicular child safety restraints. (FY09)

In July 2008, the Delaware child restraint law was changed. All children must be properly restrained in a federally approved child safety seat appropriate for the child's age, weight, and height up through 7 years of age or 65 pounds. Additionally, children 8 through 15 years old must be properly secured in a seatbelt. All children less than 12 years old or 65 inches in height are still required to sit in the back seat if there are active airbags in the front passenger seating position. The fine for violating the law is $25 plus court costs.

Suicide

The Commission reviewed three child deaths due to suicide during this time period. Two of the three children had a history of substance abuse, self-mutilation, and recent arguments with a boyfriend and/or girlfriend. All three children had prior suicidal ideation and had an argument with a parent prior to the death.

Delaware has taken a step forward in addressing adolescent suicide. The Division of Public Health Wellness Centers have had advanced training on this issue and they continue to work with CDNDSC after the death of a child due to suicide. The Department of Services for Children, Youth and Their Families' Office of Prevention and Early Intervention is leading a grant program entitled *Project LIFE (Living Is for Everyone)*. This is a comprehensive, statewide suicide prevention initiative targeting youth ages 10 to 24.

[25] Unlicensed Teenaged Drivers: Who Are They, and How Do They Behave When They Are Behind the Wheel? Michael R. Elliott, PhD, Kenneth R. Ginsburg, MD, MSED, Flaura K. Winston, MD, PhD, *Pediatrics* 2008;122:e994–e1000

This project is supported by the Delaware Suicide Prevention Coalition (DSPC), of which CDNDSC is a member. By creating new programming and leveraging existing sources, the DSPC aims to reduce negative behaviors and enhance resiliency in youth most at risk for suicide. *Project LIFE* takes a public health and community-based approach to suicide prevention by identifying the broader patterns of suicidal behavior through groups and populations. Following the Guiding Principles of the National Strategy for Suicide Prevention, DSPC is designed to be a catalyst for social change, with the power to transform attitudes, policies and services. The goals of *Project LIFE* are to prevent suicidal behaviors by enhancing resiliency; reduce the impact of suicide and suicidal behaviors on individuals, families, and communities; and improve access to available prevention services for vulnerable, high-risk individuals.[26]

The following recommendation was made after a child committed suicide with a shotgun; he had a history of severe sexual abuse, physical abuse, and neglect.

1. The CDNDSC supports the post-adoption services liaison position that has been previously suggested by the Division of Family Services. This liaison would provide referral services, family support services, advocacy, resource identification, and system navigation. (FY08)

Unsafe Sleeping Practice Deaths (Undetermined, SUID, and SIDS)

The Child Death Panels reviewed 18 deaths due to unsafe infant sleeping practices. The disproportionate number of African American infants who died as a result—12—represents 67% of unsafe infant sleeping deaths. Most of these deaths occur at 1 to 3 months of age (12 deaths). The most important trend in all of these collective deaths is that not one child was in his or her own bed or crib. Seven of the infants were not sleeping on their back, and 14 were sleeping with other people (this can include adults and/or siblings). These deaths were preventable and it is critical that the public education on the risks of unsafe infant sleeping continue within the State of Delaware. As mentioned earlier, the Joint Commissions (CPAC and CDNDSC) have made this one of their top priorities. For more information, please see the Infant Safe Sleeping Practice Subcommittee section on page 13.

The most important trend in all of these collective deaths is that not one child was in his or her own bed or crib.

After review of the 18 unsafe infant sleeping deaths, the Commission has made the following recommendations:

1. Based on agency systems that could minimize and/or prevent another death, the Panel recommends a change in education and documentation of such. It is recommended that a letter be sent to all pediatricians and family practice physicians that *Safe Sleeping Environment* and not just *Back to Sleep* be taught and documented. (FY09)

2. CDNDSC shall send a letter to a specific hospital to ensure that proper protocols are followed regarding follow up with patients discharged on apnea monitors. (FY09)

3. CDNDSC shall send a letter to the Delaware American Academy of Pediatrics that the primary care physician and the clinic should share the responsibility for follow up of Child Development Watch referrals. (FY09)

A full update on all recommendations with agency responses from FY2003 to FY2009 will be reported in the FY2010 annual report.

[26] http://www.delteenspace.org/life.html

FIMR: CARING COMMUNITIES/SHARING HOPE

THE FIMR PROGRAM: HIGHLIGHTS OF PROGRESS TO DATE

Since its inception in 2006, the Delaware Fetal and Infant Mortality Review (FIMR) has established itself as an important function of the CDNDSC that offers a unique, public health perspective on the stories behind the fetal and infant deaths occurring in the state. Delaware code established the FIMR Program to "conduct fetal and infant mortality reviews and facilitate the implementation of recommendations based on the National Fetal and Infant Mortality Review Program model … [using] information gathered through a clinical review and summary of medical and all other subpoenaed records, and maternal interviews" (Title 31, Chapter 3, Subchapter II, § 321)[27]. This report presents the findings from the multidisciplinary case reviews that were deliberated between April 2007 and May 2009.

FIMR Staff

Three full-time staff perform the key functions of FIMR and work closely with child death review staff. The FIMR program coordinator is a nurse who is primarily responsible for completing medical abstractions and presenting case summaries to case review teams (CRTs). The FIMR coordinator records CRT findings and prepares reports for the CDNDSC on the key issues discussed. A FIMR medical social worker contacts mothers experiencing a fetal or infant loss for a maternal interview that allows the mother to tell her story. The FIMR social worker is present for all CRT deliberations and is available to answer questions on those cases with a maternal interview. A FIMR records technician helps subpoena and track medical records, generate case numbers and prepare materials for CRT meetings. Figure 1 presents the FIMR process and the key staff functions.

Medical Record Abstractions

With the subpoena power of the CDNDSC, the FIMR records technician is able to request all relevant hospital delivery records, obstetric (OB) triage records and prenatal care records, if available. Other pertinent medical records from various specialists are subpoenaed as indicated to complete the picture of prenatal, delivery, postpartum, and pediatric care. The records are reviewed in detail by the FIMR coordinator. Abstractions are done using an electronic database, the Baby Abstracting System and Information NETwork (BASINET), supported by Go Beyond, L.L.C. in

[27] NFIMR: **Fetal and infant mortality review manual: a guide for communities.** Second edition: National Fetal and Infant Mortality Review Program; 2008.

Florida. BASINET went live in September 2007, and all FIMR records have been entered into this database.

Since the FIMR statute took effect, there have been 373 fetal or infant death referrals for the period July 1, 2006–June 30, 2009. Of these cases, 195 (52%) have been medically abstracted. The remaining 178 cases are either partially abstracted, awaiting further medical records, or pending abstraction.

Figure 2 presents the number of referrals by year of death and the progress made to date in the FIMR process. There were 58 FIMR referrals for deaths occurring between July 1, 2006, and December 31, 2006, of which 95% have been deliberated by a CRT (n=55 cases). For 2007, of the total 111 referrals, CRTs have deliberated on 70 cases (63%), and another 31 cases (28%) are fully abstracted. For 2008, there were 151 FIMR referrals, 11 have been deliberated by a CRT (7%), and 27 (18%) are fully abstracted. The remaining 113 cases (75%) are partially abstracted or pending abstraction. All 53 referrals as of July 24, 2009, for the period January to June 2009 need to be abstracted.

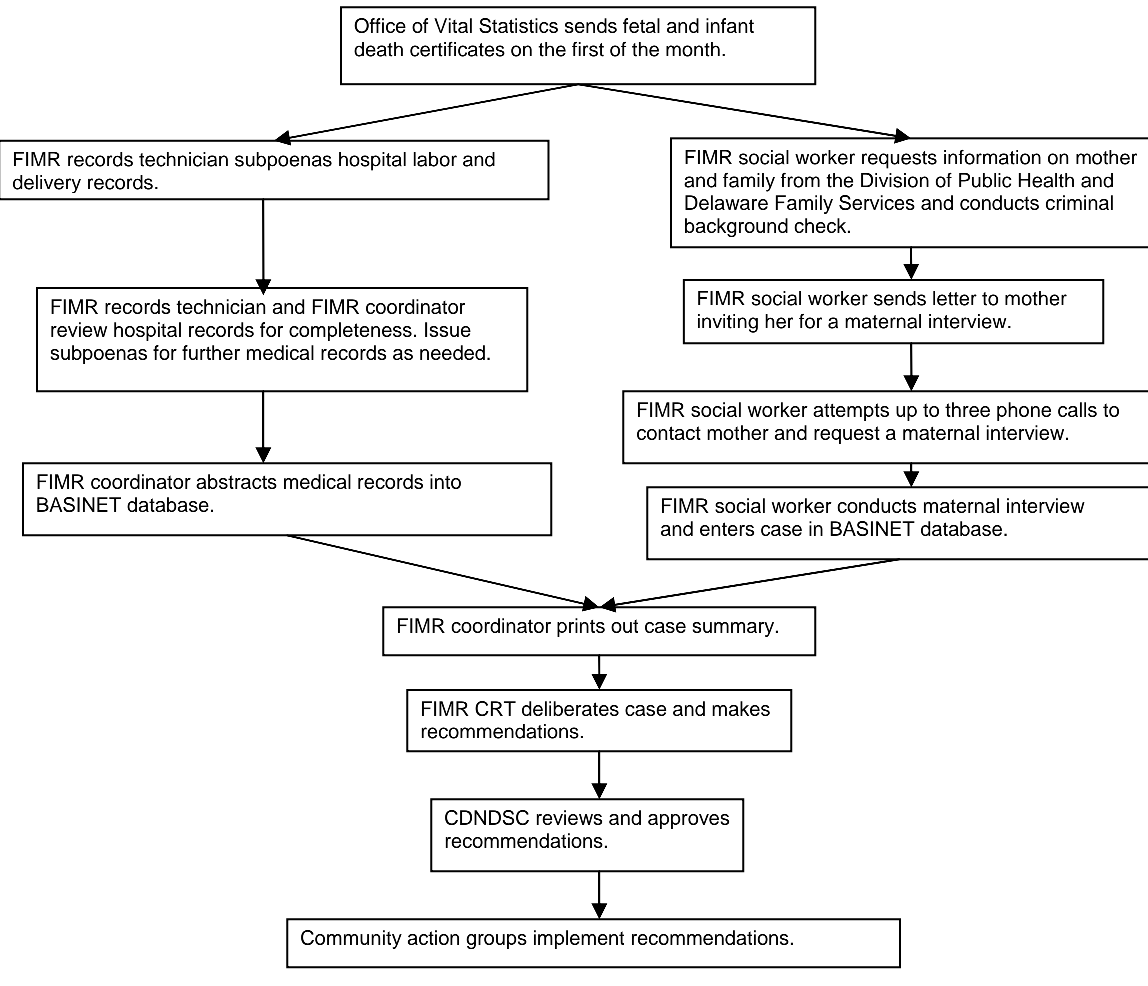


Figure 1: FIMR process and staffing functions

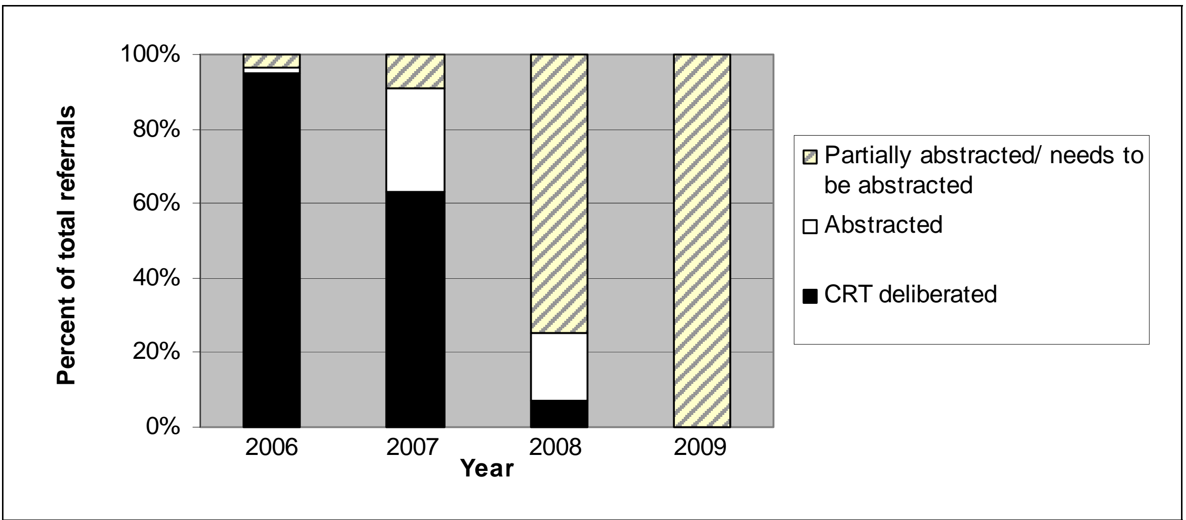


Figure 2: FIMR cases: progress to date

Maternal Interviews

The maternal interview is a key component of the FIMR process and gives CRTs tremendous insight into the case that is being reviewed. In FY2008 and FY2009, 56 maternal interviews were conducted, and 33 of these cases were deliberated by CRTs. FIMR receives fetal and infant death certificates from the Department of Vital Statistics each month. The FIMR medical social worker uses the information contained therein to request background information on the families from the Division of Family Services and the Division of Public Health. The FIMR social worker also checks for any criminal history in the parents' background.

The FIMR social worker attempts to reach each mother within 15 months following her loss by sending two letters and making three phone attempts. If the social worker is able to make contact with the mother, she explains the purpose of the FIMR Program and requests a maternal interview. The mother's well being is always a top priority. If the mother does agree to the interview, it is scheduled at a time and place of her convenience and comfort. Most interviews last between one and a half to two hours. The social worker provides written grief information that is specific to the mother's experience and makes any necessary referrals, such as counseling, support groups, Smart Start, WIC, etc. In September 2008, the Delaware Division of Public Health generously funded FIMR's use of one of their contract Spanish interpreters. The interpreter participated in three maternal interviews with Spanish-speaking couples. She also translated all FIMR letters, brochures, and the maternal interview consent form into Spanish.

A few weeks after the maternal interview is completed, an evaluation is sent out for women to complete about their experience with the interview. The purpose of the evaluation is to make sure that women feel they are benefiting from participating in FIMR and that they are not harmed in any way by their participation. Based on 19 evaluations returned, 18 mothers felt the interview gave them an opportunity to share their feelings. Women chose to do the interviews in order to provide information that might help other mothers and infants (n=16), to talk about their experience (n=10), and to get help looking for services (n=4). About three-fourths of the respondents said that the interview was beneficial, and 21% said that it was somewhat beneficial. One mother felt the interview was not beneficial. All but one respondent felt she was helping other families by sharing her story.

Excerpts from the maternal interview evaluations:

"It was nice to have someone ask me about my experience since doctors do not do this. I hope [FIMR] can present some valuable information to workers in the medical field to improve care for women and babies. I thought [the interviewer] was very professional and was genuine with her empathy and concern for me and other mothers' well-being."

"FIMR allowed me to talk about events surrounding the death of my son rather than just the birth and days shortly after. I just hope that other mothers take advantage of your services and hopefully there will one day be an answer."

"Even though our son is gone, his short life still counted. Answering questions helps to validate our experience [with the pregnancy]."

Case Review Teams

FIMR CRT members bring a wealth of experience to the reviews and form a multidisciplinary team composed of physicians, nurses, social workers, and community members working in both the private and public sectors. CRTs deliberate on de-identified case summaries presented by the FIMR coordinator to select contributing risk factors and formulate recommendations. The FIMR coordinator has four cases ready to present for each two-hour CRT meeting. The FIMR CRTs began in New Castle County (NCC) and Kent/Sussex Counties (K/S) with training in March 2007. In April 2007, these two groups began meeting monthly to deliberate their first FIMR cases. Initially, the CRT Panels completed one to two cases per meeting. As each team has become more comfortable with the case review process, they have been able to review up to three to four cases per meeting, depending on the complexity of each case (average 2 cases per meeting for NCC, 2.5 cases for K/S). Efforts were made to enlist volunteers for the Wilmington (WILM) CRT. In October 2007, the WILM CRT was trained and began deliberations the following month. To date, the WILM CRT has reviewed on average 2.4 cases per meeting.

In total, 136 FIMR cases have been reviewed by the NCC, K/S, and WILM CRTs since April 2007. Of these cases, 33 (24%) had a maternal interview completed. Reviewers get a much broader picture of the dynamics of a case when a maternal interview has been completed compared to having only the medical records abstraction available. When the case is reviewed, the FIMR medical social worker who conducted the interview is the voice of the mother at the CRT and ensures that any concerns or issues that the mother had are heard by the group.

In December 2008, CRT meetings changed format and began using the case summary and deliberation checklist from BASINET.

Annual Bereavement Conference

Since 2007, CDNDSC and FIMR have hosted an annual Delaware Bereavement Conference. The purpose of this meeting is to bring together people (nurses, social workers, pastoral care, etc.) working directly with mothers and families who have experienced a fetal or infant loss in order to share resources, information, and support.

FIMR and CDNDSC held its first Bereavement Conference on September 25, 2007. The idea for the conference was discussed at the CRTs. The CRTs were noticing differences in the bereavement support that was being offered to women/families throughout the state. The goal of the first conference was to establish a standardized response from all of the Delaware hospitals to those families who have had a fetal/infant loss. Important partnerships were also established at this initial meeting between FIMR and hospital personnel. The hospitals agreed to include FIMR brochures in their grief packets provided to families.

On September 23, 2008, the Second Annual Bereavement Luncheon was entitled *Connections and Collaborations in Bereavement Work* and featured presentations on multicultural issues in perinatal end-of-life care, hospice care, and *Being a Professional with a Personal Touch*. There were 39 attendees representing the Division of Public Health, Beebe Hospital, Christiana Care Health System, Nanticoke Hospital, A.I. duPont Hospital for Children, Kent General Hospital, Milford Memorial Hospital, Parents as Teachers, and the Delaware Adolescent Program, Inc. The group reviewed and discussed some of the comments from FIMR maternal interviews regarding the bereavement support that families had received at the hospital. Each hospital then had an opportunity to update the group on what changes or new support efforts they had made in their bereavement programs and to announce upcoming events, such as hospital-sponsored memorials for families who have lost babies. Continuing education credits were offered to nurses who attended. The conference received excellent feedback based on evaluations completed by those in attendance.

Conclusions: The FIMR Process

There has been tremendous progress to date for the FIMR Program in Delaware including:

- 3 trained regional CRTs representing multiple disciplines
- 136 cases reviewed by CRTs to date
- 195 cases with complete medical abstractions through June 30, 2009
- 56 maternal interviews completed through June 30, 2009
- An extensive computer-based abstraction database since September 2007 into which all FIMR cases have been entered
- The hosting of an annual bereavement conference in Delaware for continuing, professional education of bereavement counselors and better integration of services

With 120 to 150 fetal and infant death referrals per calendar year and an intensive review process, the FIMR CRTs have reviewed up through 63% of cases from 2007. Facing this backlog of cases and with the goal being to ensure shorter delays in case review, FIMR staff and the CDNDSC are looking into ways to streamline and modify the FIMR case selection process based on the National FIMR model. The Delaware FIMR Program staff and CDNDSC are committed to maintaining quality, in-depth reviews while working to maintain a feasible caseload for three CRTs, all of which are based on voluntary community support.

Changes to the CRT process are also planned to help enrich discussion while still incorporating the strengths of an automated deliberation checklist.

RECOMMENDATIONS FROM THE FIMR CRTS

Descriptive Summary of FIMR Cases Deliberated by CRTs

FIMR CRTs have reviewed 136 cases since April 2007. These cases comprised 70 fetal deaths and 66 infant deaths. Table 1 (page 34) shows characteristics of the total FIMR cases reviewed compared to the total Delaware infant death cohort (n=99 in 2006 or n=508 for 2001–2005), when available. The proportion of mothers who are white and black are similar among the group of FIMR infant deaths and the total 2006 Delaware infant death cohort. In the FIMR cases deliberated by CRTs, 70 mothers were white (either Hispanic or non-Hispanic) and 59 were black (all non-Hispanic). Slightly more mothers from Sussex County are in the FIMR infant death group than in the total Delaware infant death group (29% vs. 18%, respectively). The gender of the fetus or infant and plurality are similar between the FIMR cases and the total Delaware infant deaths between 2001 and 2005. Only 7% of FIMR cases involved mothers with no prenatal care or entry into prenatal care in the third trimester. Slightly more than one-half of FIMR cases involved mothers with Medicaid insurance.

Figure 3 (page 35) shows the relative proportion of gestational age intervals for the FIMR fetal deaths and FIMR infants deaths as compared to the total 2002–2006 Delaware infant deaths (n=503). Relatively more FIMR fetal deaths occurred in the third trimester (the 28 to 36 gestational week interval) and relatively fewer fetal deaths occurred in the under 28-week interval compared to the infant death groups. The frequency of birth weight intervals is shown in Figure 4 (page 36) for FIMR fetal deaths and FIMR infant deaths as compared to the total 2002–2006 Delaware infant deaths.

Table 2 (page 37) presents the primary cause of death in FIMR infant cases compared to the 2001–2005 Delaware infant death cohort. Prematurity was the leading cause of death in both groups, though relatively more frequent in the FIMR cohort. Congenital anomalies were the second leading cause of death in both groups. Among FIMR infant deaths, nine deaths were attributed to congenital anomalies, but 12 cases were associated with congenital anomalies. The congenital anomalies in the FIMR infant cases included chromosomal disorders (n=4), anencephaly (n=2), congenital heart disease (n=6), and regal agenesis (n=1).

Of the 136 cases deliberated by CRTs, FIMR maternal interviews were conducted in 33 cases (24%). Among the 70 deliberated cases involving Hispanic and non-Hispanic white mothers, 29% had a maternal interview (n=20). Twenty percent of the 59 cases deliberated involving black, non-Hispanic mothers included a FIMR maternal interview. The proportion of white and black mothers accepting a maternal interview was not statistically significant. The FIMR social worker tracked recurring issues raised in the maternal interviews, and these are summarized in Appendix 1 (page 45).

Among FIMR infant death cases reviewed, 51% were fetal deaths, 55% were perinatal deaths (fetal deaths over 28 weeks' gestation and infant deaths 0 to 7 days old), 38% were neonatal deaths occurring between 0 and 28 days old, and 10% were post-neonatal deaths between 29 and 364 days old.

Table 3 (page 37) shows that the age of death among FIMR infant cases is comparable to the total Delaware infant death cohort in 2006 (n=99). Appendix 2 and Appendix 3 (pages 47 and 50, respectively) include a more comprehensive list of the contributing factors and recommendations from the 136 cases deliberated. An analysis was also done to examine separately those contributing factors and suggestions by maternal race. There were 70 white mothers (Hispanic and non-Hispanic combined) and 59 black mothers (all non-Hispanic) whose cases were deliberated by the CRTs since April 2007. Some racial disparities are found among the top five issues and are discussed below. Other notable differences by race that are highlighted in Appendix 4 (page 53) include a higher proportion of black mothers with a history of sexually

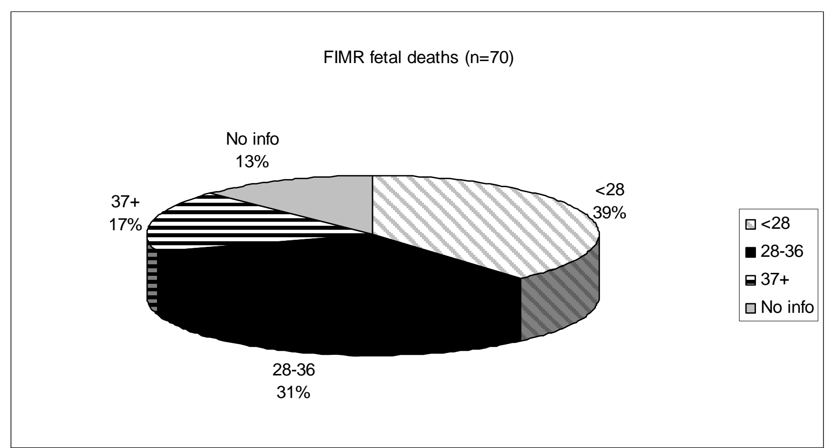
transmitted diseases, unplanned pregnancy, and use of in vitro fertilization or assisted reproductive technologies. The prevalence of substance abuse and no prenatal care was higher among white mothers.

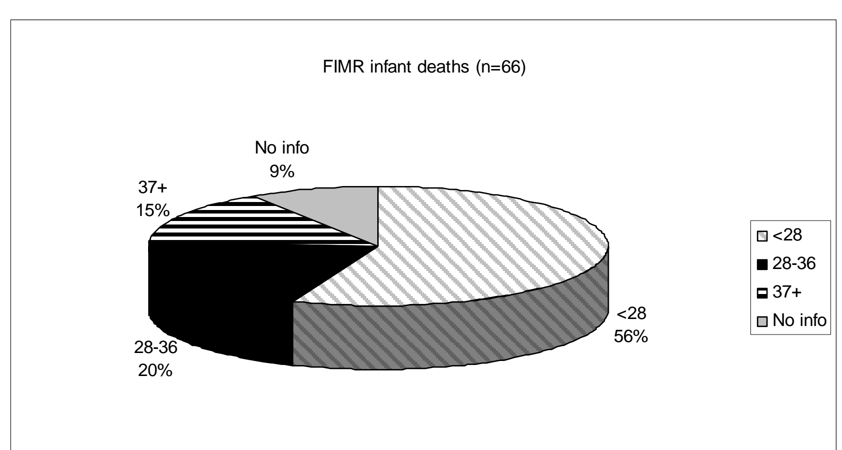
Table 1: Characteristics of FIMR cases

	% total FIMR cases (n=136)	% FIMR fetal deaths (n=70)	% FIMR infant deaths (n=66)	% total Delaware infant deaths
Maternal race				
White	51%	56%	47%	51%*
Black	43%	41%	45%	44%
Other	5%	3%	8%	5%
County (maternal residence)				
New Castle	63%	64%	61%	69%*
Kent	11%	11%	11%	13%
Sussex	26%	24%	29%	18%
Maternal age (years)				
< 20	14%	14%	14%	
20–29	56%	54%	58%	
30–39	30%	31%	29%	
40+	0%	0%	0%	
Maternal education				
< 12 years	7%	7%	6%	
High school	57%	61%	53%	
1+ years college	27%	23%	32%	
Postgraduate	7%	7%	6%	
No information	2%	1%	3%	
Entry into prenatal care				
1st trimester	71%			
2nd trimester	22%			
3rd trimester	1%			
No prenatal care	6%			
Method of payment				
Medicaid	53%			
Private	39%			
Self	2%			
Military	1%			
Other	4%			
No information	1%			
Gender of fetus or infant				
Male	55%	57%	53%	55%**
Female	45%	43%	47%	45%
Plurality				
Single	81%	89%	73%	79%**
Plural	19%	11%	27%	21%

* For this category, the comparison group is the total 2006 Delaware infant deaths, of which there were 99 deaths.

** For this category, the comparison group is the total group of Delaware infant deaths from 2001 to 2005, of which there were 508 deaths.





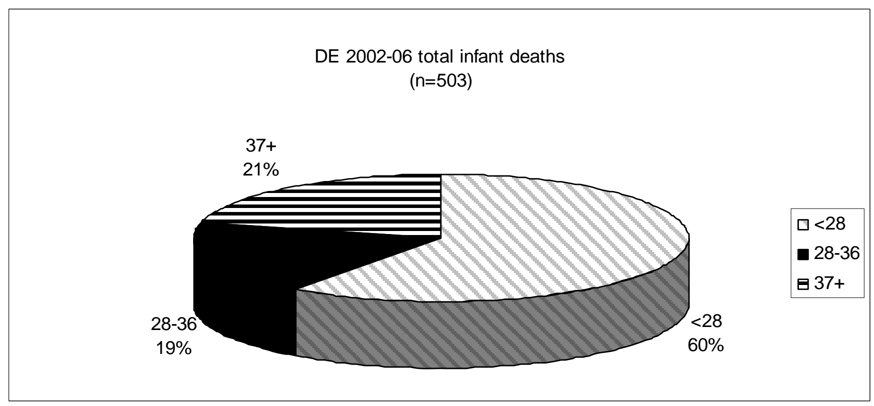
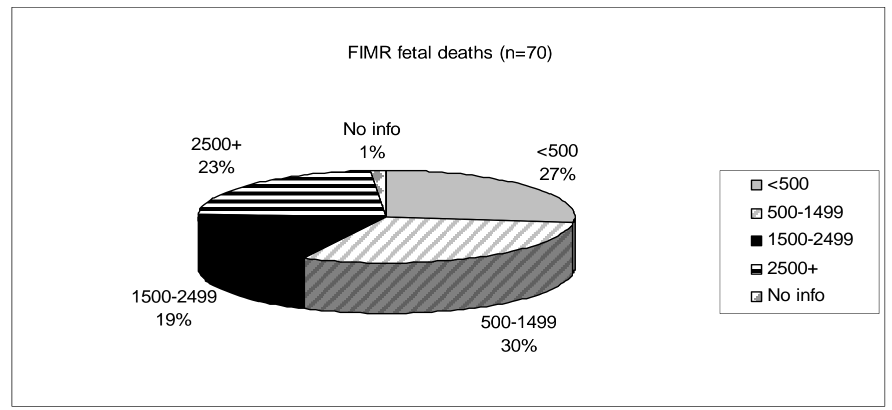
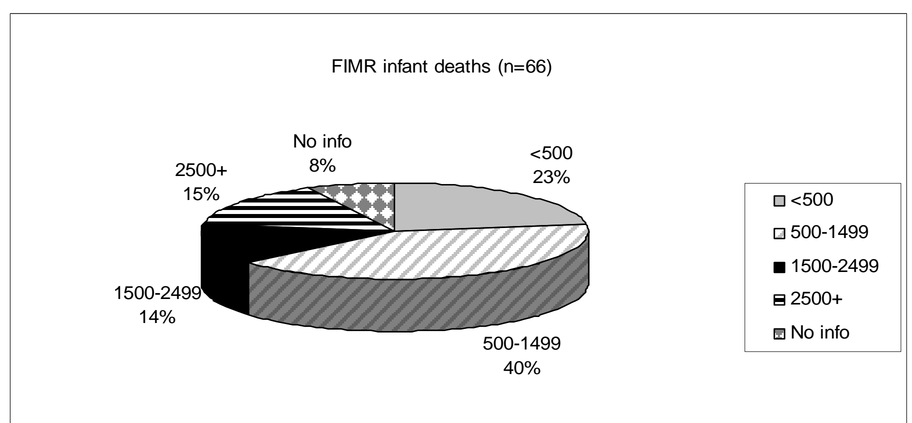


Figure 3: Gestational age distribution (in weeks)





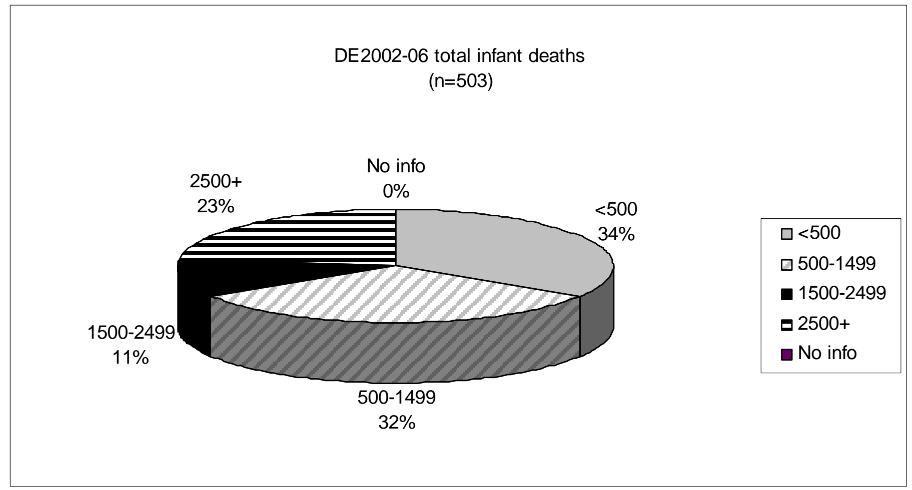


Figure 4: Birth weight distribution (in grams)

Table 2: Primary cause of death

Cause of death	FIMR infant deaths (n=66)	%FIMR	DE 2001-05 infant deaths (n=508)	%DE infant deaths 2001-05
Prematurity	27	41%	110	22%
Congenital malformations, deformations, and& chromosomal abnormalities	9	14%	64	13%
Newborn affected by maternal complications of pregnancy	2	3%	51	10%
Complications of placenta, cord and membranes	1	2%	30	6%
Respiratory distress/ failure	7	11%	21	4%
Sepsis	1	2%	21	4%
Diseases of the circulatory system	5	8%	13	3%
Intrauterine hypoxia and birth asphyxia	1	2%	9	2%
Pulmonary hemorrhage	1	2%	7	1%
Renal failure/ anomaly	1	2%	6	1%
Necrotizing enterocolitis	1	2%	5	1%

Table 3: Age of infant death

Age at death	Number of FIMR infant deaths	%FIMR infant deaths	% DE 2006 infant deaths
< 24 hrs	31	48%	42%
0–28 days	51	78%	73%
29–364 days	14	22%	27%

CRT Findings and Recommendations

The top five issues identified through the FIMR CRT deliberations are:

1. Pre-existing medical conditions
2. Medical and social services/community resources available but not used
3. Obesity/nutrition
4. Preterm labor
5. Bereavement counseling/support

CRT Recommendations

Pre-existing Medical Conditions

Issue: In 71% of the FIMR cases reviewed (96 of 136), CRTs identified mothers' pre-existing medical conditions as an important risk factor. Nineteen mothers had a history of asthma, ten had hypertension, seven had diabetes, and another three had a history of gestational diabetes. Fourteen mothers had significant mental health issues, such as depression, anxiety, psychosis, or bipolar disorder. Thirty-nine women had a significant gynecological history, such as abnormal Pap smears, uterine fibroids, ovarian cysts, polycystic ovarian syndrome, endometriosis, and sexually transmitted diseases. Of the sexually transmitted diseases recorded, there were seven mothers with a history of Chlamydia, five with herpes simplex virus, and one each with a history of gonorrhea, trichomonas, and syphilis. The prevalence of pre-existing medical conditions was 73% among both white mothers and black mothers.

The high proportion of mothers for whom pre-existing medical conditions were identified as a risk factor raises the concern that their health was suboptimal in the preconception or interconception period. There is some indication that women are not being educated effectively about how medical issues influence their pregnancy and how to minimize risks. From the information derived in maternal interviews, in five cases, mothers felt that their pregnancy was not treated as a high-risk pregnancy, and the associated risks were not explained clearly to them. The preconception and interconception time periods are very important in the health of the mother and her infant. Most of these serious, pre-existing medical conditions require ongoing management both in and out of the health care system and are influenced by a variety of lifestyle choices.

Case #1

A single, African-American woman in her early 30s had a pregnancy resulting in a fetal demise at 31 weeks. Her history is significant for asthma, chronic hypertension, multiple urinary tract infections, and obesity (BMI 48.5). She had a splenectomy in 2001 to treat idiopathic thrombocytopenic purpura (a blood clotting disorder). A prior pregnancy was complicated by pre-eclampsia and resulted in preterm labor. The mother has a history of alcohol abuse, and she was raised in a household with an alcoholic parent. She lives in a low-income, high-crime neighborhood. She was unable to take oral contraceptives because of her high blood pressure, and she said that Medicaid would not pay for an intrauterine device (IUD). The mother was stressed about the pregnancy and said that she would have aborted the pregnancy if she had the money to pay for it. Following the maternal interview, the FIMR social worker provided the mother with information on how to get her IUD through Medicaid.

Case #2

A single, white female in her mid-20s had a pregnancy resulting in a fetal demise at 38 weeks. She had a history of psychosis, schizoaffective disorder, developmental delays, anxiety, and depression. She also had fainting and dizzy spells. She was unsure of the paternity of the baby, but her boyfriend had fetal alcohol syndrome and had been deemed "incompetent" by the State and his public guardian said he was "not allowed" to get married. The mother went off her medications due to her pregnancy, and she had a psychotic episode.

Recommendation: There should be continued support for the Delaware Healthy Mother Infant Consortium as a comprehensive strategy to expand the vision and the provision of preconception and interconception care to capture all women of childbearing age.

- Continue support and expansion of all programs supported under the Delaware Healthy Mother Infant Consortium umbrella to promote women's health, especially among women at a higher risk for poor health and pregnancy outcomes.
- Continue support for healthy lifestyle messages when women present for medical care to include annual OB/GYN care, family practice/primary care visits, sexually transmitted disease clinics, school wellness centers, and fertility specialist visits.
- For women with a history of poor pregnancy outcomes or significant risk factors, provide "wraparound services," such as case management services through insurance and Delaware's *Screening for Life Program*. These programs can address or modify risk factors and should include healthier lifestyle choices, avoidance of substance abuse, nutrition counseling, family planning, genetic counseling, annual health checkups, and psychosocial screenings.
- Support the efforts undertaken by the Systems of Care Committee of the Delaware Healthy Mother and Infant Consortium to promote utilization of the family planning waiver available through Medicaid and increase access to family planning services for women in the postpartum period.
- Support the efforts undertaken by the Systems of Care Committee of the Delaware Healthy Mother and Infant Consortium to investigate and increase public awareness of maternal depression and other mental health conditions during pregnancy and postpartum.
- Promote use of mental health screening tools and increase services available to those women identified at high risk in the prenatal and postpartum periods.

Medical and Social Services/Community Resources Available But Not Used

Issue: In 40% of the cases reviewed (55 of 136), the CRT Panels noted inadequate or a delay in referrals for home-based services for high-risk[28] pregnant women. The proportion of women with inadequate or delayed referrals was higher among black women (46%) compared to white women (37%). Often times women who are identified as high risk are seeing more than one provider and their case may be complicated by medical and/or social stressors that require additional patient education or medical monitoring, such as blood pressure checks or glucose control. In 43% of FIMR cases deliberated (59 of 136), home visits during pregnancy to monitor clinical status and additional education would have been beneficial to those women who were identified as higher risk, particularly among black women for whom this suggestion was noted in 53% of cases (31 of 59).

In 40% of cases (54 of 136), better assessment of the family's home and socioeconomic situation would have been warranted to identify those women at risk. Black women had a significantly higher prevalence of emotional stressors during pregnancy as identified by CRTs (29%) compared to white women (13%) and a higher prevalence of young age less than 21 years (29% compared to 16% among white women). One-quarter of women of both races had the presence of life course perspective risk factors, stressors such as a history of abuse, poverty, or lack of social support.

Based on 30 maternal interviews, 14 mothers reported significant life stressors that could have affected her pregnancy. Seven mothers were found to be eligible for further support services, and the FIMR social worker made referrals following the maternal interview.

Case #1

A white female in her early 20s with her first pregnancy had a medical history notable for irritable bowel syndrome, endometriosis, anxiety, panic attacks, bipolar disorder, and back pain. She smoked cigarettes and marijuana during her pregnancy, and she also drank alcohol. She was on six prescription medications. The mother lived in a trailer with her boyfriend and two roommates, all of whom also smoked. She was alienated from her family. During the pregnancy, the mother had to switch medical providers because she missed appointments and she could not afford to pay the fee. She asked her employer to give her light duty at work and they said they could not, so she quit and did not work for most of her pregnancy. She was involved in two car accidents during her pregnancy. The father of the baby was also out of work during the pregnancy. The couple's income was less than $8,000 that year. The mother did not receive home-based services during the pregnancy.

At the time of the FIMR maternal interview, the mother was pregnant again. She was not willing to go to the bereavement support group that the hospital recommended because the location brought up bad feelings for her, but she did want to find another support group. The FIMR social worker was able to make a referral for a support group and for Smart Start services.

[28] A pregnancy, where because of a specific health history of the mother or child, the risk of birth defects or complications is increased. www.medchartprevention.com/Public/Glossary.aspx

Recommendation: Improve and facilitate the screening and referral of high-risk pregnant women to increase access to case management, mental health, and public assistance programs as needed.

- Enhance and provide funding for public programs in place, such as Smart Start, Nurse Family Partnership, Resource Mothers, Parents as Teachers, etc.
- Provide statewide education to all obstetricians, OB triage units, hospital discharge planners, and hospital social workers on community programs available throughout Delaware and on how to refer women to these programs. Support the establishment of an easy-to-refer toll-free number and Web site through Children and Families First for providers who wish to access additional home-based services for high-risk pregnant women. This referral number can also be used for those pregnant women who have missed prenatal appointments and may need additional resources in getting to their prenatal appointments.
- Develop and distribute a comprehensive community resource list to all OB and family practice clinics. This resource list should be given to all pregnant women regardless of their socioeconomic or insurance status and would include information on warning signs and when to call their provider as well as providing information on Medicaid, WIC (Women, Infants and Children), and food stamps. A toll-free number and Web site should be developed to help women access care.

Obesity/Nutrition

Issue: In 36% of the cases reviewed (49 of 136), mothers were classified as obese. Among black women, the proportion of those with obesity was higher at 47% (28 of 59 women); among white women, the prevalence of obesity was 27% (19 of 70 women). In 24% of the cases reviewed (32 of 136), the mothers were classified as having inadequate nutrition and/or anemia in the first trimester—a finding in 29% of the cases involving white women and 19% of the cases involving black women. In 35% of all cases deliberated, the FIMR CRTs suggested further education on proper nutrition and weight gain in pregnancy was needed.

Recommendation: Nutritional counseling services should be widely available and reimbursable as a standard of care in pregnancy, especially in high-risk women. Nutritional counseling should also be available and reimbursable during a preconception care visit so that women are closer to their ideal weight before getting pregnant. Suggestions include:

- Increase education and outreach in Delaware schools to promote healthy lifestyle choices, including avoiding substance abuse, making healthier food choices, and managing weight, as well as exercising and decreasing stress. The Nemours Health and Prevention Services is undertaking these efforts, which can help turn the tide of the rising obesity epidemic by starting with children and young people to prevent and reduce the occurrence of behaviors that are linked to obesity.
- Discuss small, feasible action steps at every well visit and at the preconception care visit to encourage women and reduce behaviors that are linked with obesity.
- Educate providers on completing nutritional histories as a standard of practice in prenatal care.
- Educate women on the importance of proper nutrition and weight gain during pregnancy at every prenatal visit.
- Refer women at high risk to social services for WIC, food stamps, or consultation with a nutritionist.
- Expand nutrition counseling services for those women at high risk and who are privately insured.

Preterm Labor

Issue: In 32% of the FIMR cases reviewed (43 of 136), mothers went into preterm labor. Thirty-six percent of cases reviewed among black women and 27% of cases among white women involved preterm labor. Mothers were diagnosed with premature rupture of membranes or preterm premature rupture of membranes in 21% of cases reviewed, prolonged rupture of membranes in 6%, newly diagnosed incompetent cervix in 6%, and had a history of incompetent cervix in 3%. In 7% of the cases reviewed (9 of 136), the mother had a history of preterm labor. Twenty percent of the cases reviewed involved multiple gestation (27 of 136), and this proportion was similar among white and black women (19% vs. 22%, respectively). Of greatest concern to the CRTs was that many mothers presented late for medical attention with advanced preterm labor and/or cervical dilation. Also, based on maternal interviews, three mothers described their experience in presenting with preterm labor and having their complaints dismissed. In these cases, the mothers did not feel they were heard or believed when they told medical professionals that something was wrong. Some mothers were told that they were not in labor, only to go on and deliver their infant prematurely. In addition, eight out of the 30 mothers interviewed felt that they were not provided with enough information or education from their prenatal provider about the pregnancy and the signs and symptoms of preterm labor.

Case #1

Three days before having her baby, the mother had a little vaginal bleeding. She called the doctor's office and was told to lie down and drink water. The next day the spotting came back and when the mother called her provider, she received the same advice. The following night she went to have a bowel movement and felt "like something was coming out the front". The mother called the doctor and they said to come in the following day. The next morning she ran some errands and then went to the doctor's office. When they examined her, she was seven centimeters dilated. She was admitted to the hospital and delivered her baby prematurely at 21 weeks' gestation.

Case #2

A woman was having premature contractions and went to her doctor's office. The doctor said that he did not feel the contractions. The mother was upset because she felt that the doctor was accusing her of lying. The mother ended up going to the hospital, and at that point, her contractions were three minutes apart. Later in her pregnancy, she delivered a stillborn baby at 32 weeks' gestation.

Case #3

A woman was seen at a hospital and called the nurse in because she felt she was having contractions. The nurse said the fetal monitor did not show evidence of contractions. The mother continued to feel the same sensations. She ended up having an emergency Cesarean section, and her baby was delivered prematurely at 27 weeks' gestation.

Recommendation: There continues to be a need for a comprehensive approach to preterm labor education.

- Begin education on the signs and symptoms of preterm labor with the first prenatal visit and reinforce it at every visit thereafter.
- Use written handouts and DVDs to present key messages on the signs and symptoms of preterm labor.
- Reintroduce a discussion of the "what if's" during prenatal classes (e.g., "what if my baby is born too early?"). By facilitating this discussion with parents ahead of time, those who are confronted with preterm labor may have a better frame of reference when making immediate decisions on medical interventions during delivery and the neonatal period.

- Identify early those pregnant women at a high risk for preterm labor, regardless of socioeconomic status, and refer these women to a home-based services program to reinforce prenatal education. Such home-based services would be particularly important for those mothers who are placed on bed rest and are at greatest risk.

Statements from mothers/parents who participated in a maternal interview:

- "I was disturbed by the lack of support available to families who have had a loss." The mother felt strongly that the hospital should have provided families with a list of local counselors who specialize in grief and infertility.
- The parents would have liked to be contacted by the hospital social worker after being discharged.
- The parents were not prepared to have to make the decisions about what to do as far as burial and services for the baby. The mother still questions if she did the right thing, but the thought of planning a funeral was overwhelming for her.
- The mother feels that women should be educated about the possibility of bad outcomes so they can be better prepared if something does go wrong

Bereavement Counseling/Support

Issue: Women who have suffered a fetal or infant loss are experiencing inadequate bereavement support. Eight of the 30 mothers interviewed said that they would have liked better counseling referrals and not just support group information. Some women may have refused bereavement support when initially approached in the hospital, and others have noted that there was inadequate follow up by the hospital and the obstetrician for grief support. In some cases, mothers did not feel comfortable with the services offered, while in other cases they may not have been able to access services by virtue of where they resided. In 96% of the cases reviewed (130 of 136), the CRTs believed the prenatal care provider needed to take a more active role in addressing mothers' grief and denial issues. In 92% of the cases (125 of 136), the CRTs believed referrals should have been initiated to a community agency for grief counseling.

Recommendation: There continues to be a need for culturally appropriate responses and community-based bereavement support services throughout Delaware. The FIMR staff has been addressing the need for standardized packets that contain grief counseling resources in the community for distribution to families. Annual review of these standardized packets will ensure that information is accurate and up-to-date. The FIMR staff also hosts an Annual Bereavement Conference in September and invites all bereavement counselors in the hospitals and their colleagues to address current issues and topics in bereavement support.

- Continue funding for the FIMR Annual Bereavement Conference.
- Every hospital should continue to work toward standardized packets with the most current and up-to-date information for bereavement support/counseling.
- All mothers who have suffered a fetal/infant loss should receive a follow-up telephone call from a bereavement counselor after discharge to allow another opportunity to ask questions and receive counseling or referral for services.
- Obstetricians should take a more active role in referring those mothers who suffered a fetal/infant loss; they should have a resource list available to them that is accurate and up-to-date for referring their patients for bereavement counseling. In addition, the perinatal care provider should have accurate and up-to-date telephone numbers for each insurance company's mental health department to assist the mother in obtaining additional mental health services if indicated.

- Enhance and provide funding for public programs in place such as Smart Start and Nurse Family Partnership to provide additional bereavement support either by a home nursing visit and/or telephone follow up.
- Ensure that community resources are culturally appropriate to address the unique needs of all mothers who have suffered a loss.
- Work with March of Dimes in Delaware to set up an Internet blog for bereaved parents and extended family members to "talk" through their loss.

Conclusions: FIMR Case Review Recommendations

The top five issues identified through the FIMR case review process are similar to those found in the FIMR pilot study that was based on 48 infant deaths occurring in 2003[29]. The fact that the top five issues have remained constant underscores the importance of these issues as a continued factor in fetal and infant death cases. Since the current FIMR findings are based on deaths occurring predominantly in 2006 and 2007, the effects of more recent system and programmatic changes are not reflected in these findings.

The next step in the FIMR process is to share the findings in this report with community action groups. In Delaware, established committees under the Delaware Healthy Mother and Infant Consortium are effective action groups with the expertise to review, interpret and implement FIMR recommendations. It is our hope that this report will help continue to spur political and social will to maintain a common focus on reducing fetal and infant mortality in Delaware and improving services for pregnant women.

[29] Ramakrishnan M: **The fetal and infant mortality review (FIMR) in Delaware: findings from the pilot study and lessons learned about implementing a statewide FIMR.** Nemours Health and Prevention Services and Delaware Division of Public Health; 2005.

APPENDICES

Appendix 1: Issues Brought Up in FIMR Maternal Interviews (total n=30*)

Issue	No. of cases involved	% of total cases with interview (n=30)
Provider and Care Received		
Better awareness and sensitivity of providers and staff in the hospital when they are dealing with a woman who has experienced a loss	8	27%
Mother did not feel she was provided with enough information/education from her doctor about the pregnancy	8	27%
Mother was dissatisfied with wait time to see a doctor	6	20%
Mother felt she was not treated like hers was a high-risk pregnancy when she should have been and the risks were not explained to her clearly	5	17%
Mother saw different providers at the doctor's office and felt it impacted the quality of her care	5	17%
Mother felt that she did not receive quality care in the hospital	5	17%
Mother was not heard/believed when she told medical professionals that something was wrong	4	13%
Mother went to OB triage on an emergency basis and had to wait to be treated	4	13%
Mother was dissatisfied with the amount of time the doctor spent with her	4	13%
Mother felt that she was a burden when she asked the doctor questions or called the office	3	10%
Mother felt that she received inconsistent information on the condition of her baby	2	7%
Mother wanted better communication between providers and hospitals when the death occurred	2	7%
Mother never got to see her baby before the baby was transported to another hospital and died	2	7%
Mother was dissatisfied with the advice the doctor gave her	1	3%
Mother felt she should have been hospitalized and not sent home	1	3%
Mother missed an appointment and could not afford to pay the fee for missed appointments and therefore she had to switch providers	1	3%
Mother would like education on possible "bad outcomes" of pregnancy	1	3%
Mother wanted to start prenatal care sooner but could not get an appointment	1	3%
Mother called the doctor's office with concerns and was reassured that things were fine	1	3%
Mother would have aborted pregnancy if the money was available	1	3%
Mother and/or baby should not be used for training purposes in the hospital when faced with the loss of a baby (i.e., residents practicing medical procedures)	1	3%

* There are 30 maternal interviews representing 33 cases as three mothers each had twins who died.

Appendix 1: Issues Brought Up in FIMR Maternal Interviews (total n=30*) (continued)

Issue	No. of cases involved	% of total cases with interview (n=30)
Mother's Health During Pregnancy		
Mother had stress in her life that could have affected her pregnancy	14	46%
Mother had mental health issues before or during her pregnancy	4	13%
Mother smoked cigarettes during part of her pregnancy	4	13%
Mother had a preconception care visit for the lost pregnancy or the new, subsequent pregnancy	3	10%
Mother was extremely sick during her pregnancy and lost weight	2	7%
Mother drank alcohol during some part of her pregnancy	2	7%
Mother smoked marijuana during her pregnancy	1	3%
Bereavement Issues		
Mother would like better counseling referrals, not just support group information	8	27%
Mother found that planning a funeral for the baby was overwhelming	4	13%
Mother sought treatment at a mental health facility after loss of baby	3	10%
Mother would have liked follow-up contact from the hospital	2	7%
Mother was not satisfied with the bereavement support she received	2	7%
Mother did not receive hospital grief packet	1	3%
Mother would like to see a fund set up for burial expenses	1	3%
Mother did not receive support group information for her county	1	3%
Other		
Mother is pregnant or has recently given birth at time of interview	9	30%
Mother would like a support group for women who have had a loss and who are pregnant again	2	7%

* There are 30 maternal interviews representing 33 cases as three mothers each had twins who died.

Appendix 2: Contributing Factors Identified by Case Review Teams

Contributing factor	# of cases involved	% of total (n=136)
Mother's Medical/OB History		
Pre-existing medical conditions, such as asthma, hypertension, diabetes, mental health disorders, etc.	96	71%
Obesity	49	36%
History of fetal or infant loss	48	35%
Inadequate nutrition (includes anemia at first trimester prenatal care visit with hemoglobin < 12 or hematocrit < 35)	32	24%
History of elective termination	22	16%
History of previous preterm and/or low-birth-weight baby	16	12%
History of sexually transmitted disease (STD) or other genitourinary infection	16	12%
History of preterm labor	9	7%
History of incompetent cervix	4	3%
History of cervical conization	3	2%
Other	19	14%
Socioeconomic		
Presence of life course perspective risk factors (stressors in childhood, history of abuse, poverty, lack of support, etc.)	33	24%
Maternal age < 21	29	21%
Other emotional stressors during pregnancy (e.g., loss of job, loss of loved one, incarceration, divorce, natural disaster, etc.)	27	20%
Lack of support systems (during pregnancy or infant's life)	20	15%
Poverty (during pregnancy or infant's life)	18	13%
Maternal age > 35	14	10%
Domestic abuse (during pregnancy or infant's life)	4	3%
Other	14	10%
Medical Conditions During This Pregnancy/Labor		
Preterm labor	43	32%
Premature rupture of membranes/preterm premature rupture of membranes	29	21%
Multiple gestation	27	20%
Maternal infection other than sexually transmitted diseases	27	20%
Sexual transmitted disease	26	19%
Placental abruption	25	18%
In vitro fertilization/assisted reproductive technology (IVF/ART)	10	7%
Anemia (diagnosed after first trimester)	8	6%
Prolonged rupture of membranes.	8	6%
Newly diagnosed incompetent cervix	8	6%
Pre-eclampsia/eclampsia/HELLP (Hemolytic anemia, Elevated Liver enzymes, Low Platelet count)	6	4%
Placenta previa	3	2%
Subchorionic bleed	3	2%
Gestational diabetes	1	1%
Hyperemesis	2	1%
Other	30	22%

Appendix 2: Contributing Factors Identified by Case Review Teams (continued)

Contributing factor	# of cases involved	% of total (n=136)
Provider Issues		
No domestic abuse screening	9	7%
No referral for home health nursing or Smart Start	9	7%
Poor communication between provider and patient	6	4%
Referral to appropriate level of care not given	4	3%
Misdiagnosis of mother or child	3	2%
Patient with multiple medical and psychosocial issues did not receive postpartum home care referral	3	2%
No Smart Start screening	1	1%
Poor communication between providers	2	1%
Poor management of labor	1	1%
Poor follow up for pregnant patient with complications	2	1%
Other	14	10%
Parental Knowledge/Compliance Issues		
Late entry into prenatal care after 13th week	28	21%
Kick counts; signs of decreased fetal movement and when to call MD	24	18%
Inconsistent prenatal care (missed visits)	19	14%
Noncompliance with plan of care	15	11%
Signs and symptoms of labor or rupture of membranes and when to call MD	9	7%
No prenatal care	7	5%
Child safety (car restraint, medication administration, Shaken Baby Syndrome, childproofing household, etc.)	1	1%
Other	9	7%
Family Planning		
Unplanned pregnancy (parental compliance/knowledge)	23	17%
Inadequate birth spacing	22	16%
Undesired pregnancy (parental compliance/knowledge)	3	2%
Lack of or inadequate family planning education (per provider)	3	2%
Other	3	2%
Substance Abuse		
Substance abuse (medical issue)	31	23%
No referral to smoking cessation/drug/alcohol rehab/treatment	14	10%
Substance abuse lifestyle (social issue)	11	8%
No substance abuse screening	3	2%
Referral to smoking cessation/drug/alcohol rehab/treatment not timely	3	2%
Other	2	1%

Appendix 2: Contributing Factors Identified by Case Review Teams (continued)

Contributing factor	# of cases involved	% of total (n=136)
Fetal/Infant Medical Issues		
Prematurity	61	45%
Previability	34	25%
Cord problem	31	23%
Infection	28	21%
Genetic/congenital anomaly incompatible with life	14	10%
Pre-existing medical condition (includes non-lethal anomalies, metabolic disorders, etc.)	9	7%
Other	12	9%
Service Issues		
Medical and social services/community resources unavailable in area	1	1%
Medical and social services/community resources available, but not used	55	40%
Quality of medical and social services/community resources inadequate to meet needs	4	3%
Patient fear of/dissatisfaction with system or staff	10	7%

Appendix 3: Suggestions Made by Case Review Teams

Suggestion	# of cases involved	% of total (n=136)
Socioeconomic		
Better assessment of family's home/socioeconomic situation	54	40%
Early referrals to social services	50	37%
Referral for financial assistance, WIC, food stamps, emergency shelter, etc.	9	7%
Easier access to care for those without insurance	1	1%
Medicaid HMO's that are more user friendly and offer more provider choices for patients	2	1%
Child Protective Services (CPS) involvement	1	1%
Other	4	3%
HS/HF or Case Management (CM) Services		
Home visits during pregnancy to monitor clinical status in high-risk patients and provide education	59	43%
Use open-ended questions on initial contact to solicit more information from parent	38	28%
More intensive services/follow up to address patient education and non-compliance issues	24	18%
Better follow up when patients that are referred don't keep appointments	9	7%
Timely entry of risk assessment scores and/or referrals so care can be initiated promptly	3	2%
Work aggressively for at least ne month to find high-risk patients for services	2	1%
Enhance communication between providers, hospitals, and community services such as Smart Start, clinics, etc.	2	1%
Other	24	18%
Medical Care/Provider Opportunities		
Debrief parents two to three months after loss to assess understanding of cause(s)/circumstances of death	37	27%
Knowledge of community services available as evidenced by referrals	36	26%
Closer evaluation of dietary habits and evaluation of diet content/nutritional counseling	23	17%
Follow up with patients when appointments are missed to reschedule; documentation of attempts/patient responses	19	14%
Better communication by provider of issues during pregnancy or infant's care, and evaluation of patient's/caregiver's understanding	15	11%
Consistent/ongoing domestic violence (DV) screening	12	9%
More intensive management/follow up for mothers with pregnancy complications	11	8%
Cultural competence	9	7%
Better network of interpreters for translation	9	7%
Better management of multiple genitourinary infections	7	5%
Accurate diagnosis	7	5%
Sensitivity training for providers	5	4%
Better assessment of patient's/caregiver's understanding of discharge instructions prior to discharge	5	4%
Referral for DV/rape counseling services	3	2%
Timely referral to local STD centers for all patients seen with sexually transmitted diseases	3	2%
Better communication among providers, especially with high-risk patients	3	2%
Better follow up from provider when they refer a patient to another provider to ensure that the patient did not have a lapse in care	3	2%
Understanding benefits of home-based services as evidenced by referrals	2	1%

Appendix 3: Suggestions Made by Case Review Teams (continued)

Suggestion	# of cases involved	% of total (n=136)
Medical Care/Provider Opportunities, continued		
More aggressive education per emergency room staff re: importance of prenatal care	1	1%
Completion of placental pathology/histology	2	1%
Better management of incompetent cervix	1	1%
Better management of labor	2	1%
Timely transfer to appropriate level of care	2	1%
Appropriate genetic testing/autopsy in babies with documented dysmorphic features	2	1%
Other	24	18%
Patient/Caregiver/Community Education		
Risks of obesity	53	39%
Importance of proper nutrition and weight gain during pregnancy	47	35%
Importance of early and consistent prenatal care	42	31%
Importance of compliance with plan of care	27	20%
Continuing "kick counts" education; signs and symptoms of decreased fetal movement and when to call MD	26	19%
Importance of protected sex, sexually transmitted disease/HIV prevention	21	15%
Incompetent cervix; cerclage, etc., prior to next pregnancy	11	8%
Signs and symptoms of preterm labor and when to call MD	8	6%
Signs and symptoms of premature rupture of membranes and when to call MD	5	4%
Importance of proper hydration to prevent preterm labor	3	2%
Breastfeeding/lactation consultant	1	1%
Other	10	7%
Grief Support		
Prenatal care providers to take an active part in addressing grief and denial issues	130	96%
Referral to community agency for grief counseling	125	92%
Postpartum depression screening and assessment of grieving status with appropriate referrals	16	12%
Grief counseling/support at delivery and/or pediatric care facility	7	5%
Have chaplain see patient to assess needs	4	3%
Follow up with patients that initially decline grief support services	3	2%
Other	3	2%
Family Planning		
Importance of being healthy before pregnancy	97	71%
Importance of family planning/preconception/interconception care	74	54%
Appropriate birth spacing	54	40%
Birth control in the immediate postpartum period and compliance with chosen contraceptive method (i.e., no missed doses)	29	21%
Genetic counseling prior to next pregnancy	28	21%
Family planning counseling with contraception dose/script or bilateral tubal ligation prior to discharge	19	14%
Persistent follow-up re: contraception/family planning when patients initially refuse services in hospital or at postpartum visit	19	14%
Community service agency to see patients in hospital post-delivery to give contraceptives before discharge	9	7%
Other	3	2%

Appendix 3: Suggestions Made by Case Review Teams (continued)

Suggestion	# of cases involved	% of total (n=136)
Substance Abuse		
Substance abuse (including smoking cessation) referral for treatment	26	19%
Patient/community education re: importance of not using drugs at any time, especially when pregnant	11	8%
Consistent/ongoing drug screening	3	2%
Closer following of patients in drug rehab; attempt to contact patients when they don't follow their treatment plan	2	1%
Other	2	1%
Medical Record/Documentation		
Improve completeness/consistency of medical record	9	7%
Improve completeness of prenatal care records	5	4%
Improve accuracy/quality/completeness of vital statistics records	3	2%
Other	2	1%

Appendix 4: Prevalence of Select Contributing Factors and Recommendations Identified at the Time of Case Review by Maternal Race

Contributing Factors	Percent of white mothers (total n=70)	Percent of black mothers (total n=59)
Mother's Medical/Ob History		
Pre-existing medical conditions (e.g., asthma, hypertension, diabetes, mental health disorders, etc.)	73%	73%
Obesity	27%*	47%*
History of preterm labor	3%*	12%*
Socioeconomic		
Maternal age < 21 years	16%	29%
Maternal age > 35 years	10%	10%
Lack of support systems (during pregnancy or infant's life)	13%	15%
Poverty (during pregnancy or infant's life)	14%	12%
Other emotional stressors during pregnancy (e.g., loss of job, loss of loved one, incarceration, divorce, natural disaster, etc.)	13%*	29%*
Medical Conditions During This Pregnancy/Labor		
In vitro fertilization or assisted reproductive technology	4%	12%
Multiple gestation	19%	22%
Sexually transmitted disease	11%*	27%*
Preterm labor	27%	36%
Parental Knowledge/Compliance Issues		
Late entry into prenatal care after 13th week	20%	20%
No prenatal care	9%	2%
Family Planning		
Unplanned pregnancy	13%	22%
Substance Abuse		
Substance abuse (medical issue)	27%	19%
Fetal/Infant Medical Issues		
Prematurity	40%	49%
Infection	16%	27%
Service Issues		
Medical and social services/community resources available, but not used	37%	46%
Patient fear of/dissatisfaction with system	7%	8%
RECOMMENDATIONS		
Socioeconomic		
Better assessment of family's home/socioeconomic situation	30%*	51%*
Early referrals to social services	27%*	51%*
Case Management or Home Visitation Services		
Home visits during pregnancy to monitor clinical status in high-risk patients and provide information	36%	53%

Appendix 4: Prevalence of Select Contributing Factors and Recommendations Identified at the Time of Case Review by Maternal Race (continued)

Contributing Factors	Percent of white mothers (total n=70)	Percent of black mothers (total n=59)
Grief Support		
Referral to community agency for grief counseling	94%	88%
Prenatal care providers to take an active part in addressing grief and denial issues	94%	97%
Substance Abuse		
Substance abuse referral for treatment (including smoking cessation	27%*	12%*

* The difference in these percentages for white mothers and black mothers was found to be statistically significant based on Z-test, with $p < 0.05$.

DATA FROM CASES REVIEWED DURING FY08–FY09

Review, in a confidential manner, the deaths of children under the age of 18, near deaths of abused and/or neglected children, and stillbirths occurring after at least 20 weeks of gestation. (31 *Del. C.* § 323.)

Criteria for Cases to Be Reviewed FY08–FY09

- All State of Delaware residents under the age of 18 whose deaths occurred within the state.
- Deaths involving criminal investigations (with the exception of abuse/neglect cases) are delayed contingent upon authorization of the Attorney General's Office.
- Deaths involving abuse and/or neglect shall be reviewed within three months of a report to the Commission notwithstanding unresolved criminal charges.
- Special requests to review a case that did not meet the review criteria are considered from agencies and professionals affiliated with the Child Death Review Panels and are approved or denied by the Panel chairperson.

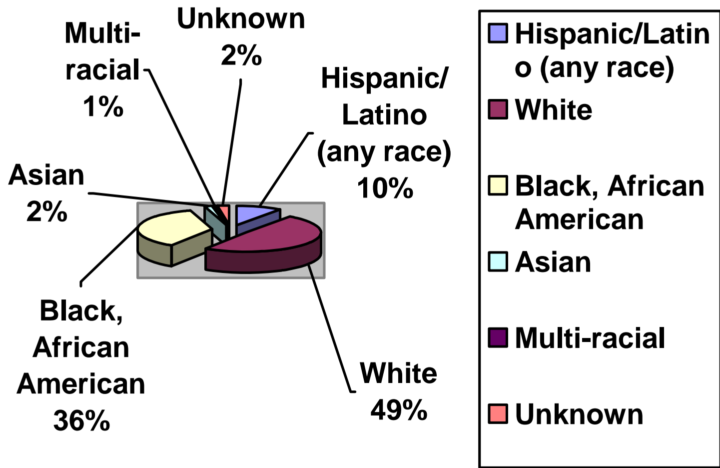
Demographics (Ethnicity/Race and Age Group by Sex)

Review Year Range: FY2008 to FY2009
State of Delaware
All Cases Reviewed

		Sex		
Ethnicity	Age Group	Male	Female	Total
Hispanic/Latino (any race)	< 1 Year	5	6	11
	1–4 Years	1	0	1
	5–9 Years	0	1	1
	10–14 Years	0	0	0
	15–17 Years	2	2	4
	Subtotal	8	9	17

Race	Age Group	Sex		
		Male	Female	Total
White	< 1 Year	23	15	38
	1–4 Years	7	4	11
	5–9 Years	4	3	7
	10–14 Years	6	3	9
	15–17 Years	9	9	18
	Subtotal	49	34	83
Black, African American	< 1 Year	22	24	46
	1–4 Years	4	4	8
	5–9 Years	0	0	0
	10–14 Years	1	0	1
	15–17 Years	5	1	6
	Subtotal	32	29	61
Asian	< 1 Year	1	1	2
	1–4 Years	0	0	0
	5–9 Years	0	0	0
	10–14 Years	1	0	1
	15–17 Years	0	0	0
	Subtotal	2	1	3
Multi-racial	< 1 Year	0	1	1
	1–4 Years	0	0	0
	5–9 Years	0	0	0
	10–14 Years	0	0	0
	15–17 Years	0	0	0
	Subtotal	0	1	1
Unknown	< 1 Year	1	2	3
	1–4 Years	0	1	1
	5–9 Years	0	0	0
	10–14 Years	0	0	0
	15–17 Years	0	0	0
	Subtotal	1	3	4

	Age Group	Sex		
		Male	Female	Total
All Races	< 1 Year	47	43	90
	1–4 Years	11	9	20
	5–9 Years	4	3	7
	10–14 Years	8	3	11
	15–17 Years	14	10	24
	Subtotal	84	68	152

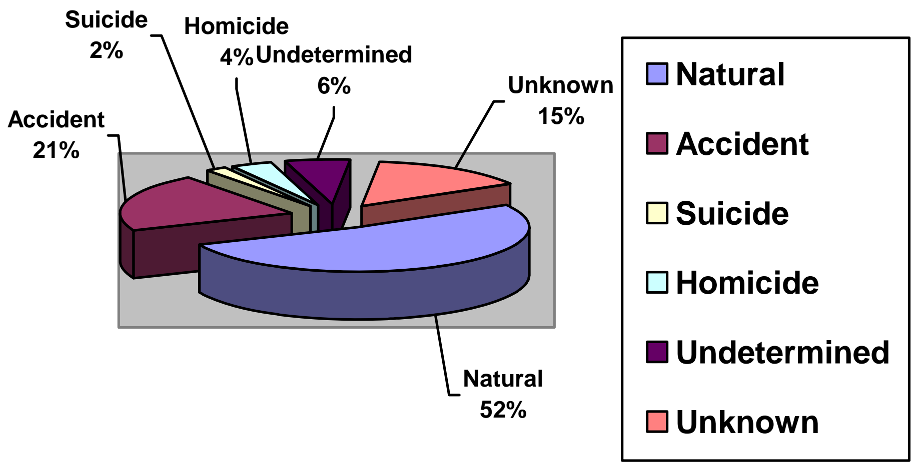


Manner and Cause of Death by Age Group (as stated on the death certificate)

Review Year Range: FY2008 to FY2009
State of Delaware
All Cases Reviewed

	Age Group					
Manner	< 1	1–4	5–9	10–14	15–17	Total
Natural	58	7	4	5	5	**79**
Accident	5	6	2	4	15	**32**
Suicide	0	0	0	0	3	**3**
Homicide	2	1	1	1	1	**6**
Undetermined	9	0	0	0	0	**9**
Unknown	16	6	0	1	0	**23**
Total	**90**	**20**	**7**	**11**	**24**	**152**

Manner	Cause	< 1	1–4	5–9	10–14	15–17	Total
		Age Group					
Natural							
	Cancer	0	1	2	2	1	**6**
	Cardiovascular	3	1	1	0	0	**5**
	Congenital anomaly	2	1	0	0	0	**3**
	Pneumonia	0	2	0	0	0	**2**
	Prematurity	45	0	0	0	0	**45**
	SIDS	4	0	0	0	0	**4**
	Other infection	1	0	0	0	0	**1**
	Other medical condition	3	2	1	3	4	**13**
	Subtotal	**58**	**7**	**4**	**5**	**5**	**79**
Accident							
	Motor Vehicle	1	2	2	4	12	**21**
	Drowning	0	2	0	0	2	**4**
	Asphyxia	4	0	0	0	0	**4**
	Fall or Crush	0	1	0	0	0	**1**
	Poisoning, Overdose or Acute Intoxication	0	0	0	0	1	**1**
	Exposure	0	1	0	0	0	**1**
	Subtotal	**5**	**6**	**2**	**4**	**15**	**32**
Suicide							
	Motor Vehicle	0	0	0	0	1	**1**
	Weapon	0	0	0	0	1	**1**
	Poisoning, Overdose, or Acute Intoxication	0	0	0	0	1	**1**
	Subtotal	**0**	**0**	**0**	**0**	**3**	**3**
Homicide							
	Drowning	1	0	0	0	0	**1**
	Weapon	0	1	1	1	1	**4**
	Poisoning, Overdose, or Acute Intoxication	1	0	0	0	0	**1**
	Subtotal	**2**	**1**	**1**	**1**	**1**	**6**
Undetermined							
	Any Medical Cause	4					**4**
	Asphyxia	2					**2**
	Undetermined Injury	2					**2**
	Unknown	1					**1**
	Subtotal	**9**					**9**
Unknown		16	6	0	1	0	23

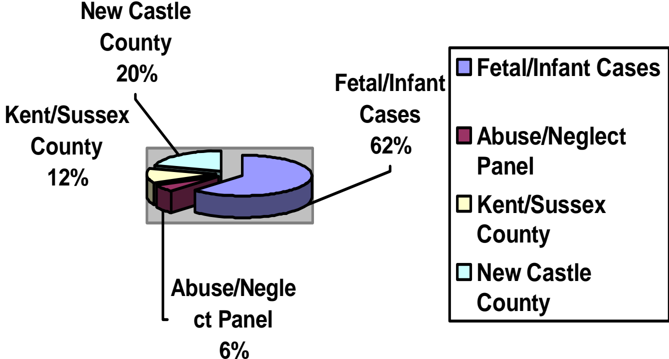


County/Team Numbers

Review Year Range: FY2008 to FY2009
All Cases Reviewed

	# of Cases Reviewed
Unknown*	52
Abuse/Neglect Panel	25
Kent/Sussex County	38
New Castle County	37
Total	152

* Unknown cases refers to infant deaths (medically abstracted and reviewed) occurring prior to 7/1/06 (pre-FIMR). After statute change, these deaths would have been categorized as FIMR.



Manner and Cause of Death by Age Group

Review Year Range: FY2008 to FY2009
New Castle County
All Cases Reviewed

	Age Group					
Manner	< 1	1–4	5–9	10–14	15–17	Total
Natural	4	1	3	3	3	**14**
Accident	1	1	0	4	7	**13**
Suicide	0	0	0	0	1	**1**
Homicide	0	0	1	1	0	**2**
Undetermined	6	0	0	0	0	**6**
Unknown	0	0	0	1	0	**1**
Total	**11**	**2**	**4**	**9**	**11**	**37**

		Age Group					
Manner	Cause	< 1	1–4	5–9	10–14	15–17	Total
Natural							
	Cancer	0	0	2	1	1	4
	Congenital anomaly	1	0	0	0	0	1
	Prematurity	1	0	0	0	0	1
	SIDS	1	0	0	0	0	1
	Other medical condition	1	1	1	2	2	7
	Subtotal	**4**	**1**	**3**	**3**	**3**	**14**
Accident							
	Motor Vehicle	0	1	0	4	5	10
	Drowning	0	0	0	0	2	2
	Asphyxia	1	0	0	0	0	1
	Subtotal	**1**	**1**	**0**	**4**	**7**	**13**
Suicide							
	Motor Vehicle	0	0	0	0	1	1
	Subtotal	**0**	**0**	**0**	**0**	**1**	**1**
Homicide							
	Weapon	0	0	1	1	0	2
	Subtotal	**0**	**0**	**1**	**1**	**0**	**2**

Manner	Cause	Age Group < 1	Total
Undetermined			
	Any Medical Cause	2	**2**
	Asphyxia	1	**1**
	Undetermined Injury	2	**2**
	Unknown	1	**1**
	Subtotal	**6**	**6**

Manner and Cause of Death by Age Group

Review Year Range: FY2008 to FY2009
Kent/Sussex County
All Cases Reviewed

			Age Group			
Manner	**< 1**	**1–4**	**5–9**	**10–14**	**15–17**	**Total**
Natural	5	6	1	2	2	**16**
Accident	3	5	1	0	8	**17**
Suicide	0	0	0	0	2	**2**
Homicide	0	0	0	0	1	**1**
Undetermined	2	0	0	0	0	**2**
Total	**10**	**11**	**2**	**2**	**13**	**38**

				Age Group			
Manner	**Cause**	**< 1**	**1–4**	**5–9**	**10–14**	**15–17**	**Total**
Natural							
	Cancer	0	1	0	1	0	2
	Cardiovascular	0	1	1	0	0	2
	Congenital anomaly	0	1	0	0	0	1
	Pneumonia	0	2	0	0	0	2
	SIDS	3	0	0	0	0	3
	Other infection	1	0	0	0	0	1
	Other medical condition	1	1	0	1	2	5
	Subtotal	**5**	**6**	**1**	**2**	**2**	**16**
Accident							
	Motor Vehicle	0	1	1	0	7	9
	Drowning	0	2	0	0	0	2
	Asphyxia	3	0	0	0	0	3
	Fall or Crush	0	1	0	0	0	1
	Poisoning, Overdose, or Acute Intoxication	0	0	0	0	1	1
	Exposure	0	1	0	0	0	1
	Subtotal	**3**	**5**	**1**	**0**	**8**	**17**
Suicide							
	Weapon	0	0	0	0	1	1
	Poisoning, Overdose, or Acute Intoxication	0	0	0	0	1	1
	Subtotal	**0**	**0**	**0**	**0**	**2**	**2**
Homicide							
	Weapon	0	0	0	0	1	1
	Subtotal	**0**	**0**	**0**	**0**	**1**	**1**

Manner	Cause	Age Group < 1	Total
Undetermined			
	Any Medical Cause	2	**2**
	Subtotal	**2**	**2**

Manner and Cause of Death by Age Group

Review Year Range: FY2008 to FY2009
Abuse/Neglect Panel
All Cases Reviewed

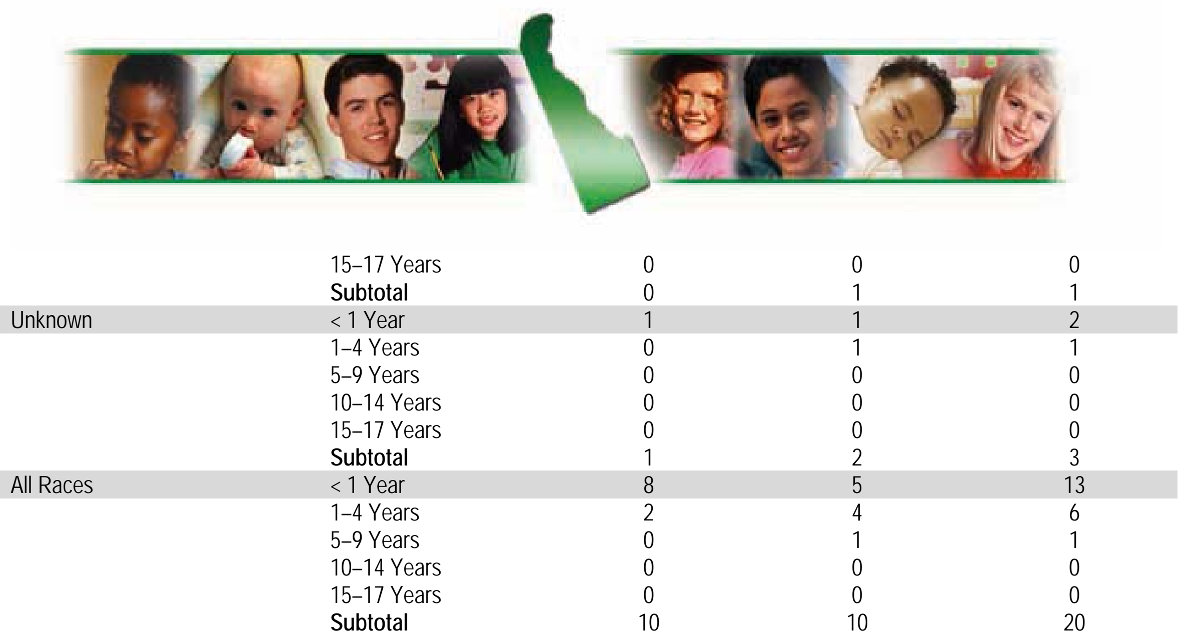
	Age Group					
Manner	< 1	1–4	5–9	10–14	15–17	Total
Accident	1	0	1	0	0	**2**
Homicide	2	1	0	0	0	**3**
Undetermined	1	0	0	0	0	**1**
Unknown	13	6	0	0	0	**19**
Total	**17**	**7**	**1**	**0**	**0**	**25**

Demographics (Ethnicity/Race and Age Group by Sex)

Review Year Range: FY2008 to FY2009
Abuse/Neglect Panel
Child Near Deaths Reviewed

		Sex		
Ethnicity	Age Group	Male	Female	Total
Hispanic/Latino (any race)	< 1 Year	3	0	3
	1–4 Years	0	0	0
	5–9 Years	0	1	1
	10–14 Years	0	0	0
	15–17 Years	0	0	0
	Subtotal	3	1	4

		Sex		
Race	Age Group	Male	Female	Total
White	< 1 Year	5	3	8
	1–4 Years	0	0	0
	5–9 Years	0	1	1
	10–14 Years	0	0	0
	15–17 Years	0	0	0
	Subtotal	5	4	9
Black, African American	< 1 Year	2	0	2
	1–4 Years	2	3	5
	5–9 Years	0	0	0
	10–14 Years	0	0	0
	15–17 Years	0	0	0
	Subtotal	4	3	7
Multi-racial	< 1 Year	0	1	1
	1–4 Years	0	0	0
	5–9 Years	0	0	0
	10–14 Years	0	0	0



	15–17 Years	0	0	0
	Subtotal	0	1	1
Unknown	< 1 Year	1	1	2
	1–4 Years	0	1	1
	5–9 Years	0	0	0
	10–14 Years	0	0	0
	15–17 Years	0	0	0
	Subtotal	1	2	3
All Races	< 1 Year	8	5	13
	1–4 Years	2	4	6
	5–9 Years	0	1	1
	10–14 Years	0	0	0
	15–17 Years	0	0	0
	Subtotal	10	10	20

Investigation Information

Review Year Range: FY2008 to FY2009
Delaware
All Cases Reviewed

	Cause of Death											
	Motor Vehicle	Fire	Drowning	Asphyxia	Weapon	Fall	Poisoning	Exposure	Other injury	Any medical cause	Unknown	Total*
Deaths reviewed	22	2	7	6	17	2	4	1	2	86	3	**152**
Death was referred to medical examiner	20	0	5	6	5	1	2	1	0	15	3	**58**
Death was NOT referred to medical examiner	2	0	1	0	10	0	1	0	0	19	0	**33**
Autopsy was performed	7	0	5	6	5	0	3	0	0	15	3	**44**
Scene investigation was conducted	21	0	5	6	11	1	2	1	0	12	3	**62**
CPS record check was conducted as result of death	22	1	6	5	15	2	3	1	0	34	3	**92**
Investigation found prior evidence of child abuse	6	1	1	0	8	0	0	0	0	7	1	**24**
CPS action taken because of death	0	1	2	1	11	1	1	0	0	3	2	**22**

* Columns do not add up to total deaths because the factors are not mutually exclusive. Other injury causes includes undetermined external, other external.

Infant Death Information

Review Year Range: FY2008 to FY2009
State of Delaware
All Cases Reviewed

	Manner of Death						
	Natural	Accident	Homicide	Undeter.	Pending	Unknown	Total
Deaths Reviewed*	58	5	2	9	0	16	**90**
Premature (< 37 weeks)	45	4	1	0	0	4	**54**
Low Birth Weight (< 2500 grams)	44	4	1	0	0	5	**54**
Intrauterine Smoke Exposure	12	1	1	6	0	3	**23**
Intrauterine Alcohol Exposure	2	0	0	0	0	0	**2**
Intrauterine Drug Exposure	8	0	0	5	0	1	**14**
Late (> 6 wks) or No Prenatal Care	4	0	0	1	0	1	**6**

* See the The FIMR Program section on page 45 for a comprehensive review of cases reviewed during FY08 and FY09.

Infant Death Information

Review Year Range: FY2008 to FY2009
New Castle County
Child Deaths Reviewed

	Manner of Death						
	Natural	Accident	Homicide	Undeter.	Pending	Unknown	Total
Deaths Reviewed	5	1	0	7	0	4	**17**
Premature (< 37 weeks)	3	1	0	0	0	0	**4**
Low Birth Weight (< 2500 grams)	3	1	0	0	0	0	**4**
Intrauterine Smoke Exposure	3	0	0	5	0	0	**8**
Intrauterine Alcohol Exposure	2	0	0	0	0	0	**2**
Intrauterine Drug Exposure	2	0	0	4	0	0	**6**
Late (> 6 wks) or No Prenatal Care	0	0	0	1	0	0	**1**

Infant Death Information

Review Year Range: FY08 to FY09
Kent/Sussex County
Child Deaths Reviewed

	Manner of Death						
	Natural	Accident	Homicide	Undeter,	Pending	Unknown	Total**
Deaths Reviewed	5	3	0	2	0	0	**10**
Premature (< 37 weeks)	2	3	0	0	0	0	**5**
Low Birth Weight (< 2500 grams)	3	3	0	0	0	0	**6**
Intrauterine Smoke Exposure	4	1	0	0	0	0	**5**
Intrauterine Drug Exposure	2	0	0	0	0	0	**2**
Late (> 6 wks) or No Prenatal Care	2	0	0	0	0	0	**2**

** Columns do not add up to total deaths because the factors are not mutually exclusive.

Infant Death Information

Infant deaths medically abstracted and reviewed (during FY09) occurring prior to 7/1/06, pre-FIMR

	Manner of Death						
	Natural	Accident	Homicide	Undeter	Pending	Unknown	Total
Deaths Reviewed	49	0	0	0	0	3	**52**
Premature (< 37 weeks)	40	0	0	0	0	2	**42**
Low Birth Weight (< 2500 grams)	38	0	0	0	0	2	**40**
Intrauterine Smoke Exposure	5	0	0	0	0	0	**5**
Intrauterine Drug Exposure	4	0	0	0	0	0	**4**
Late (> 6 wks) or No Prenatal Care	2	0	0	0	0	0	**2**

Infant Death Information

Review Year Range: 2008 to 2009
Delaware/Abuse/Neglect Panel
Child Deaths Reviewed

	Manner of Death						
	Natural	Accident	Homicide	Undeter	Pending	Unknown	Total**
Deaths Reviewed	0	1	2	2	0	0	**5**
Premature (< 37 weeks)	0	0	1	0	0	0	**1**
Low Birth Weight (< 2500 grams)	0	0	1	0	0	0	**1**
Intrauterine Smoke Exposure	0	0	1	1	0	0	**2**
Intrauterine Drug Exposure	0	0	0	1	0	0	**1**
Late (> 6 wks) or No Prenatal Care	0	0	0	0	0	0	**0**

** Columns do not add up to total deaths because the factors are not mutually exclusive.

Motor Vehicle and Other Transport Death Demographics

Review Year Range: FY2008 to FY2009
Delaware
All Cases Reviewed

	Position of Child				
Age Group	Driver	Passenger	Pedestrian	Unknown	Total
< 1 Year	0	0	1	0	**1**
1-4 Years	0	2	0	0	**2**
5-9 Years	0	1	1	0	**2**
10-14 Years	0	2	2	0	**4**
15-17 Years	7	4	2	0	**13**
Total	**7**	**9**	**6**	**0**	**22**
Sex					
Male	4	6	3	0	**13**
Female	3	3	3	0	**9**
Total	**7**	**9**	**6**	**0**	**22**
Ethnicity					
Hispanic (Any Race)	1	3	0	2	**6**
Race					
White	6	7	5	0	**18**
Black, African American	1	2	0	0	**3**

Asian	0	0	1	0	**1**
Total	7	9	6	0	**22**
Area Where Incident Occurred					
Urban	0	1	1	0	**2**
Suburban	3	3	3	0	**9**
Rural	4	4	2	0	**10**
Unknown	0	1	0	0	**1**
Total	**7**	**9**	**6**	**0**	**22**

Vehicle Type Involved in Incident and Position of Child

Review Year Range: FY2008 to FY2009
Delaware
All Cases Reviewed

	Position of Child			
Vehicle Type Child In/On	Driver	Passenger	Not in a Vehicle	Total
Car	5	6	0	**11**
SUV	2	3	0	**5**
Pedestrian	0	0	4	**4**
Other	0	0	1	**1**
Unknown	0	0	1	**1**
Total	**7**	**9**	**6**	**22**

Risk Factors of Young Drivers (Ages 14-17) Involved in the Crash

Review Year Range: FY2008 to FY2009
Delaware
All Cases Reviewed

Risk Factors	Child Was Driving	Driver of Child's Vehicle
Deaths Reviewed	7	6
Responsible for causing incident	6	5
Alcohol/drug impaired	3	2
No license	2	1
Violating graduated licensing rules	0	2
Two or more teen passengers (ages 14–21)	2	4

Driving Conditions	All Deaths Involving Drivers Ages 14–17
Deaths Reviewed	13
Fog	2
Wet roads	4
Inadequate lighting	1

Motor Vehicle Protective Measures

Review Year Range: FY2008 to FY2009
Delaware
All Cases Reviewed

	Driver	Passenger	Pedestrian	Total
Deaths Reviewed	7	9	6	22
Protective Measure Present and Used Correctly				
Airbag	0	3	0	3
Lap belt	3	6	0	9
Shoulder belt	3	6	0	9
Child seat	0	1	0	1
Protective Measure Present and Used Incorrectly				
Airbag	0	1	0	1
Child seat	0	1	0	1
Other	0	1	0	1

	Position of Child		
Protective Measure Present and Not Used	Driver	Passenger	Total
Lap Belt	2	1	3
Shoulder belt	2	1	3
Protective Measure Needed But None Present			
Booster seat	0	1	1

Fire Death Demographics

Review Year Range: FY2008 to FY2009
All Cases Reviewed

	Single home	Duplex	Apartment	Trailer/Mobile Home	Other	Unknown/NA	Total
Sex							
Female	0	0	0	0	0	2	2
Total	**0**	**0**	**0**	**0**	**0**	**2**	**2**
Race							
Black, African American	0	0	0	0	0	1	1
Unknown	0	0	0	0	0	1	1
Total	**0**	**0**	**0**	**0**	**0**	**2**	**2**

Factors Involved in Fire Deaths

Supervision was needed in one case, but not provided by caretaker.

Drowning Death Demographics

Review Year Range: FY2008 to FY2009
All Cases Reviewed

Place of Drowning	Pool/Hot Tub	Bathtub	Total
Age Group			
< 1 Year	0	2	2
1–4 Years	2	1	3
5–9 Years	0	0	0
10–14 Years	0	0	0
15–17 Years	2	0	2
Total	4	3	7
Sex			
Male	4	2	6
Female	0	1	1
Race			
White	1	1	2
Black, African American	3	2	5

Factors Involved in Drowning Deaths

Review Year Range: FY2008 to FY2009
All Cases Reviewed

Place of Drowning	Pool/Hot Tub	Bathtub	Total
Deaths Reviewed	4	3	7
Child wearing floatation device	0	0	0
Child could Swim	0	0	0
No barriers to Water	1	0	1
Child not supervised, but needed	2	2	4

Weapon Death Demographics

Review Year Range: FY2008 to FY2009
All Cases Reviewed

	Type of Weapon			
Age Group	Firearm	Sharp	Person's Body Part	Total
< 1 Year	0	0	10	**10**
1-4 Years	0	0	3	**3**
5-9 Years	0	1	0	**1**
10-14 Years	1	0	0	**1**
15-17 Years	1	1	0	**2**
Total	2	2	13	**17**
Sex				
Male	2	2	7	**11**
Female	0	0	6	**6**
Ethnicity				
Hispanic (Any Race)	0	0	2	**2**
Race				
White	2	1	8	**11**
Black, African American	0	1	3	**4**
Multi-racial	0	0	1	**1**
Unknown	0	0	1	**1**
Total	2	2	13	**17**
Manner of Death				
Suicide	1	0	0	**1**
Homicide	1	2	1	**4**
Unknown	0	0	12	**12**
Total	2	2	13	**17**
Child not supervised, but needed	1	1	0	**2**
Action omission/commission contributed to death	2	2	13	**17**

Safety Features and Storage of Firearms Used in Incident

Review Year Range: FY2008 to FY2009
All Cases Reviewed

	Type of Firearm									
Safety Features	Handgun	Shotgun	BB gun	Hunting rifle	Assault rifle	Air rifle	Sawed-off shotgun	Other	Unknown	Total
Deaths Reviewed	1	1	0	0	0	0	0	0	0	**2**

	Where Firearm Stored					
How Firearm Stored	Not stored	Locked cabinet	Unlocked cabinet	Other storage	Unknown	Total
Deaths Reviewed	1	0	0	1	0	**2**
Loaded	1	0	0	1	0	**2**

Owner and Use of Weapon at Time of Incident

Review Year Range: FY2008 to FY2009
All Cases Reviewed

	Firearm Licensed		
Owner of Fatal Firearm	No	Unknown	Total
Weapon stolen	1	0	1
Parent	0	1	1
Total	**1**	**1**	**2**

	Type of Weapon			
Leading Uses of Weapon at Time of Incident	Firearm	Sharp	Person's Body Part	Total
Commission of crime	0	2	10	**12**
Other use	0	0	3	**3**
Random violence	0	1	1	**2**
Jealousy	0	1	1	**2**
Bullying	0	1	1	**2**
Self-injury	1	0	0	**1**
Russian roulette	1	0	0	**1**
Playing with weapon	1	0	0	**1**
Intimate partner violence	0	0	1	**1**

Poisoning, Overdose, or Acute Intoxication Death Demographics

Review Year Range: FY2008 to FY2009
All Cases Reviewed

		Type of Substance	
Age Group	Deaths Reviewed	Prescription Drug	Over-the-Counter Drug
< 1 Year	1	0	1
1-4 Years	1	1	0
5-9 Years	0	0	0
10-14 Years	0	0	0
15-17 Years	2	1	1
Total	**4**	**2**	**2**
Sex			
Male	2	1	1
Female	2	1	1
Total	**4**	**2**	**2**
Race			
White	2	1	1
Black, African American	2	1	1
Total	**4**	**2**	**2**

Factors Involved in Poisoning, Overdose, or Acute Intoxication Deaths

Review Year Range: FY2008 to FY2009
All Cases Reviewed

Type of Incident	Deaths Reviewed	Type of Substance: Prescription Drug	Type of Substance: Over-the-Counter Drug
Accidental overdose	1	1	0
Adverse effect, not OD	1	1	0
Acute intoxication	1	0	1
Unknown	2	0	1
Total	**5**	**2**	**2**
Child not supervised, but needed	1	1	0

Suffocation/Asphyxia Death Demographics

Review Year Range: FY2008 to FY2009
All Cases Reviewed

	Action Causing Suffocation/Asphyxia								
Age Group	Sleep-related	Covered in or fell into object	Confined in tight space	Swaddled in tight blanked	Wedged into tight space	Asphyxia by gas	Other	Unknown	Total
< 1 Year	7	0	0	0	0	0	0	0	**7**
1-4 Years	0	0	0	0	0	0	0	0	**0**
5-9 Years	0	0	0	0	0	0	0	0	**0**
10-14 Years	0	0	0	0	0	0	0	0	**0**
15-17 Years	0	0	0	0	0	0	0	0	**0**
Total	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**
Sex									
Male	3	0	0	0	0	0	0	0	**3**
Female	4	0	0	0	0	0	0	0	**4**
Total	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**
Race									
White	2	0	0	0	0	0	0	0	**2**
Black, African American	5	0	0	0	0	0	0	0	**5**
Manner of Death									
Accident (Unintentional)	4	0	0	0	0	0	0	0	**4**
Undetermined	3	0	0	0	0	0	0	0	**3**
Supervisor impaired by alcohol/drugs	2	0	0	0	0	0	0	0	**2**

Sleep-Related Death Demographics

Review Year Range: FY2008 to FY2009
All Cases Reviewed

Race	Age Group	Sex		
		Male	Female	Total
White	0–1 Months	2	2	4
	2–3 Months	0	1	1
	Subtotal	**2**	**3**	**5**
Black, African American	0–1 Months	1	0	1
	2–3 Months	2	4	6
	4–5 Months	1	2	3
	6–7 Months	2	0	2
	Subtotal	**6**	**6**	**12**
Asian	4–5 Months	1	0	1
	Subtotal	**1**	**0**	**1**
All Races	0–1 Months	3	2	5
	2–3 Months	2	5	7
	4–5 Months	2	2	4
	6–7 Months	2	0	2
	Subtotal	**9**	**9**	**18**

Sleep-Related Deaths by Cause

Review Year Range: FY2008 to FY2009
All Cases Reviewed

Age Group	Cause of Death					
	SIDS	Asphyxia	Medical Condition	Undeter.	All Other Causes	Total
0–1 Months	0	2	1	1	1	**5**
2–3 Months	5	2	0	0	0	**7**
4–5 Months	3	1	0	0	0	**4**
6–7 Months	0	1	0	1	0	**2**
Total	**8**	**6**	**1**	**2**	**1**	**18**

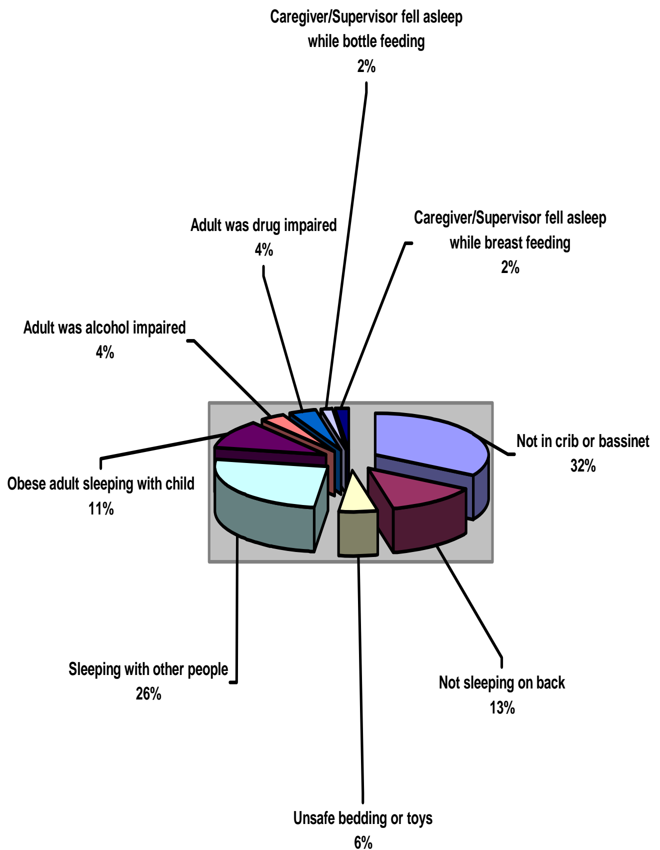
Circumstances Involved in Sleep-Related Deaths

Review Year Range: FY2008 to FY2009
All Cases Reviewed

	Age Group				
	0–1 Mos	2–3 Mos	4–5 Mos	6–7 Mos	Total
Unobstructed by person or object	1	2	1	0	**4**
On top of object	0	3	1	0	**4**
Under person	2	1	0	2	**5**
Under object	0	1	0	0	**1**
Wedged	0	0	1	0	**1**
Fell or rolled onto object	1	0	0	0	**1**
Unknown	1	0	1	0	**2**
Total	**5**	**7**	**4**	**2**	**18**

Factors Involved in Sleep-Related Deaths

Review Year Range: FY2008 to FY2009
All Cases Reviewed



	Age Group				
	0–1 Mos	2–3 Mos	4–5 Mos	6–7 Mos	Total
Deaths Reviewed	5	7	4	2	**18**
Not in a crib or bassinette	5	7	4	2	**18**
Not sleeping on back	2	2	2	1	**7**
Unsafe bedding or toys	1	2	0	0	**3**
Sleeping with other people	5	4	3	2	**14**
Obese adult sleeping with child	2	2	1	1	**6**
Adult was alcohol impaired	2	0	0	0	**2**
Adult was drug impaired	1	1	0	0	**2**
Caregiver/supervisor fell asleep while bottle feeding	1	0	0	0	**1**
Caregiver/supervisor fell asleep while breast feeding	1	0	0	0	**1**

Acts of Omission/Commission Demographics

Review Year Range: FY2008 to FY2009
All Cases Reviewed

		Acts of Omission/Commission						
Age Group	Deaths Reviewed	Poor/ Absent Supervision	Child Abuse	Child Neglect	Other Negligence	Assault (not child abuse)	Suicide	Other
< 1 Year	35	1	12	1	1	0	0	20
1-4 Years	11	6	4	0	1	0	0	0
5-9 Years	3	0	0	0	2	1	0	0
10-14 Years	4	3	0	1	0	0	0	0
15-17 Years	11	0	0	0	3	1	3	4
Total	**64**	**10**	**16**	**2**	**7**	**2**	**3**	**24**
Sex								
Male	37	6	8	2	4	2	1	14
Female	27	4	8	0	3	0	2	10
Total	**64**	**10**	**16**	**2**	**7**	**2**	**3**	**24**
Ethnicity								
Hispanic (any race)	1	0	3	0	2	0	0	3
Race								
White	35	5	10	1	5	1	3	10
Black, African American	24	5	3	1	1	1	0	13
Asian	1	0	0	0	0	0	0	1
Multi-racial	1	0	1	0	0	0	0	0
Unknown	3	0	2	0	1	0	0	0
Total	**64**	**10**	**16**	**2**	**7**	**2**	**3**	**24**
Manner of Death								
Natural	6	0	0	1	0	0	0	5
Accident (Unintentional)	21	5	0	1	6	0	0	9
Suicide	3	0	0	0	0	0	3	0
Homicide	6	1	2	0	0	2	0	1
Undetermined	9	0	0	0	0	0	0	9
Unknown	19	4	14	0	1	0	0	0
Total	**64**	**10**	**16**	**2**	**7**	**2**	**3**	**24**
Primary Cause of Death								
Motor vehicle	14	2	0	1	6	0	1	4
Fire, burn or electrocution	2	1	1	0	0	0	0	0
Drowning	5	4	1	0	0	0	0	0
Suffocation or strangulation	6	0	0	0	0	0	0	6
Weapon	17	1	13	0	0	2	1	0
Fall or Crush	1	0	0	0	1	0	0	0
Poisoning	4	1	0	0	0	0	1	2
Other injury	3	1	0	0	0	0	0	2
Medical condition	10	0	0	0	0	0	0	9
Unknown Cause	2	0	0	1	0	0	0	1
Total	**64**	**10**	**16**	**2**	**7**	**2**	**3**	**24**

Acts of Omission/Commission Intent

Review Year Range: FY2008 to FY2009
All Cases Reviewed

	Poor/Absent Supervision	Child Abuse	Child Neglect	Other Negligence	Assault (not child abuse)	Suicide	Other
Deaths Reviewed	10	16	2	7	2	3	24
Caused							
Intentional	0	11	0	0	2	2	0
Unintentional	5	0	0	2	0	0	3
Undetermined	1	1	0	1	0	0	0
Unknown	0	2	0	0	0	0	0
Contributed							
Intentional	0	1	0	0	0	0	0
Unintentional	4	0	2	3	0	0	21
Undetermined	0	1	0	1	0	0	0
Unknown	0	0	0	0	0	1	0

Acts of Omission/Commission Child Abuse Information

Review Year Range: FY2008 to FY2009
All Cases Reviewed

	Child Abuse		
	Caused	Contributed	Total
Deaths Reviewed	14	2	16
Type of Abuse			
Physical			16
Abusive head trauma			12
Retinal hemorrhages			6
Shaken			10
Chronic battered child syndrome			1
Beating/kicking			3
Scalding/burn			1
Other			2
Triggering Events for Physical Abuse			
Crying			6
Other			2
Unknown event			9
Chronicity of abuse			
Chronic with child	3	1	4
Pattern in family	4	0	4
Isolated incident	4	0	4
Division of Family Services (DFS) Involvement			
Investigation found evidence of prior abuse	6	1	7
DFS action taken because of death	10	2	12
Person Responsible for Act			
Biological parent	10	2	12
Parent's partner	3	0	3
Other relative	0	0	0
Child care worker/babysitter	1	0	1
Sex			
Male	10	1	11
Female	4	1	5

Acts of Omission/Commission Suicide Information

Review Year Range: FY2008 to FY2009
All Cases Reviewed

	Suicide		
	Caused	Contributed	Total
Deaths Reviewed	2	1	3
Child History			
History of substance abuse	2	0	2
Drug/alcohol impaired at time of incident	0	1	1
History of mental illness	1	0	1
Was gay/lesbian/bisexual/questioning	1	0	1
Criminal history or delinquency	1	0	1
Spent time in juvenile detention	1	0	1
Circumstances			
Child left a note	2	0	2
Child talked about suicide	2	1	3
Prior suicide threats were made	2	0	2
Prior attempts were made	1	0	1
Child had received prior mental health services	2	0	2
Child was receiving mental health services at time of death	2	0	2
Child was on medications for mental illness	1	0	1
Child had history of running away	1	0	1
Child had history of self-mutilation	2	0	2
Suicide was part of a suicide pact	1	0	1
Leading Reasons That May Have Contributed to Child's Death			
Argument with parent	2	1	3
Argument with boyfriend/girlfriend	2	0	2
Drugs or alcohol	2	0	2
Breakup with boyfriend/girlfriend	2	0	2
Bullying as victim	1	0	1
Rape/Sexual abuse	1	0	1
Problems with law	1	0	1
Sexual orientation	1	0	1
Other reason	1	0	1

COMMISSIONERS FY2008	STATUTORY ROLE
The Honorable Joseph R. Biden III	State Attorney General
Dr. Richard T. Callery	State Medical Examiner
C. Malcolm Cochran, IV, Esquire	Chair of the Child Protection Accountability Commission
Dr. Garrett H. C. Colmorgen, Chair	Perinatologist
Ms. Tania M. Culley, Esquire	Child Advocate
Ms. Karen Derasmo	Chair of the CAN Panel
The Honorable Cari DeSantis	Secretary of the Department of Services for Children, Youth and Their Families
Ms. Marjorie Lynn Hershberger	Chair of the CAN Panel and NCC Panel
Sergeant Phillip Hill	New Castle County Police Department
Dr. Kathy A. Janvier	Delaware Nurses Association
The Honorable Chandlee Johnson Kuhn	Chief Judge of the Family Court
Colonel Thomas MacLeish	Superintendent of the Delaware State Police
The Honorable Vincent P. Meconi	Secretary of the State Department of Health and Social Services
Ms. Judith Ann Moore	Wilmington Chair, Fetal Infant Mortality Review
Dr. Lani L. Nelson-Zlupko	National Association of Social Workers
Ms. Leslie Newman	Child Advocate from statewide nonprofit organization
Ms. Sharon Painter	K/S Chair, Fetal Infant Mortality Review
Dr. David Paul	Neonatologist
Ms. Marie E. Renzi	Child Advocate from statewide nonprofit organization
Dr. Jaime G. H. Rivera	Director of the Division of Public Health
Dr. Kevin Sheahan	Pediatrician
Dr. Philip Shlossman	Obstetrician
Dr. Wendy Sturtz	NCC Chair, Fetal Infant Mortality Review
Chief Michael J. Szczerba	Police Chief's Council of Delaware
The Honorable Valerie Woodruff	State Secretary of Department of Education

COMMISSIONERS FY2009	STATUTORY ROLE
The Honorable Joseph R. Biden III	State Attorney General
Dr. Richard T. Callery	State Medical Examiner
Ms. Patricia Ciranni	K/S Chair Fetal Infant Mortality Review
C. Malcolm Cochran, IV, Esquire	Chair of the Child Protection Accountability Commission
Dr. Garrett H. C. Colmorgen, Chair	Perinatologist
Ms. Tania M. Culley, Esquire	Child Advocate
Ms. Karen Derasmo	Chair of the CAN Panel
The Honorable Cari DeSantis and the Honorable Vivian L. Rapposelli	Secretary of the Department of Services for Children, Youth and Their Families
Ms. Marjorie Lynn Hershberger,	Chair of the CAN Panel and NCC Panel
Sergeant Phillip Hill	New Castle County Police Department
Dr. Kathy A. Janvier	Delaware Nurses Association
Dr. Amanda Kay	Chair of the CAN Panel
The Honorable Chandlee Johnson Kuhn	Chief Judge of the Family Court
Colonel Thomas MacLeish and Colonel Robert M. Coupe	Superintendent of the Delaware State Police

The Honorable Vincent P. Meconi and the Honorable Rita Landgraf	Secretary of the State Department of Health and Social Services
Ms. Judith Ann Moore	Wilmington Chair, Fetal Infant Mortality Review
Dr. Lani L. Nelson-Zlupko	National Association of Social Workers
Ms. Leslie Newman	Child Advocate from statewide nonprofit organization
Ms. Sharon Painter	K/S Chair, Fetal Infant Mortality Review
Dr. David Paul	Neonatologist
Ms. Marie E. Renzi	Child Advocate from statewide nonprofit organization
Dr. Jaime G. H. Rivera and Ms. Karyl Rattay	Director of the Division of Public Health
Dr. Kevin Sheahan	Pediatrician
Dr. Philip Shlossman	Obstetrician
Dr.Wendy Sturtz	NCC Chair, Fetal Infant Mortality Review
Chief Michael J. Szczerba	Police Chief's Council of Delaware
The Honorable Valerie Woodruff and the Honorable Lillian M. Lowery	State Secretary of Department of Education

Commissioner Proxies FY08 and FY09

Ms. Patricia Ciranni
Sgt. Randy Fisher
Ms. Patricia Dailey Lewis, Esquire
Ms. Karen Golden-Triolo
The Honorable Joelle Hitch
Ms. Marykate McLaughlin
Ms. Allison McDowell
Ms. Oluyemi Olowu
Dr. Nancy Wilson

New Castle County Panel FY08 and FY09

Name	Statutory Role
Ms. Ann Altemus	Child, Inc.
Ms. Alice Coleman	Delaware Health and Social Services
Sgt. Matthew Cox	Delaware State Police
Dr. Kate Cronan	Emergency Room Physician
Sgt. Patricia Davies	New Castle County Police Department
Ms. Karen DeRasmo	Child Advocate
Det. Donna DiClemente	City of Wilmington Police
Ms. Kathy Goldsmith	Department of Education
Ms. Marjorie Hershberger, Chair	Delaware Nurses Association
Ms. Terri Kaiser (FY08)	Child Advocate
Ms. Sue Poley (FY09)	Child Advocate
Ms. Mariann Kenville-Moore	Department of Justice
Dr. Richard Leader	OB/GYN
Mr. Stuart Mast	Dept. of Services for Children, Youth and Their Families
Ms. Allison McDowell	Office of the Child Advocate
Ms. Barbara Mengers	Delaware Health and Social Services
Ms. Janice Mink	Child Protection and Accountability Commission
Ms. Anita Muir	Division of Public Health
Dr. Jennie Vershvovsky	Office of the Medical Examiner

Kent/Sussex Panel — Statutory Role

FY08 and FY09

Kent/Sussex Panel	Statutory Role
Det. Kenneth Brown	Milford Police Dept.
Ms. Kathleen Dickerson, Esquire	Department of Justice (FY09)
Ms. Helene Diskau	Child Development Watch
Lt. John Evans	Delaware State Police
Ms. Karen Favors	National Association of Social Workers
Ms. Margaret Foor	Delaware Health and Social Services
Dr. Fran Franklin	Children and Families First
Ms. Kathy Goldsmith	Chair, Department of Education (FY08)
Ms. Patricia Hearn	Family Court
Ms. Cherelyn Homlish	Child Advocate
Lt. James Hosfelt	Dover Police Department
Dr. Patrick Jarvie	Pediatrician
Ms. Diane Klecan	Child Advocate (FY08)
Mr. Jim Lesko	Department of Education (FY09)
Mr. Stuart Mast	Dept. of Services for Children, Youth and Their Families
Ms. Allison McDowell, Chair	Office of the Child Advocate
Ms. Sara Myers	Division of Public Health (FY09, Chair)
Mr. Christopher Parker, Esquire	Department of Justice (FY09)
Mr. Ralph Richardson III	Child Advocate (FY09)
Ms. Anna Scovell	Child Advocate
Dr. Philip Shlossman	Obstetrician
Dr. Judith Tobin	Office of the Medical Examiner
Ms. Melanie Withers, Esquire	Department of Justice (FY09)

Abuse/Neglect Panel — Statutory Role

FY08 and FY09

Abuse/Neglect Panel	Statutory Role
Ms. Barbara Akenhead	Division of Public Health
Det. Mary Lou Bartkowski	Delaware State Police
Ms. Karen DeRasmo, (Chair FY08)	Child Advocate
Dr. Jason Hann-Deschaine	Pediatrician (FY08)
Ms. Marjorie Hershberger, (Chair FY09)	Delaware Nurses Association
Dr. Amanda Kay	Pediatric Hospitalist (FY09)
Ms. Diane Klecan	Children's Advocacy Center
Ms. Rebecca Laster	National Association of Social Workers
Ms. Kim Lucas, (FY08)	Delaware Health and Social Services
Ms. Allison McDowell	Office of the Child Advocate
Ms. Janice Mink	Child Advocate
Mr. Reese Parker	Dept. of Services for Children, Youth and Their Families
Ms. Jill Rosen	Child Advocate
Ms. Phyllis Scully, Esquire	Department of Justice
Ms. Anita Symonds	Child Advocate
Ms. Linda Wolfe	Department of Education

FIMR Wilmington Case Review Team

FY08

Chris Buker
Aleks Casper
Golden Ford-Jones
Megan Giovanelli
Susan Greenstein
Katherine Grey
Brenda Gunter
Dr. Richard Henderson
Dr. David Hack
Moonyeen Klopfenstein
Karen McDonald
Judith Ann Moore
Anita Muir
Pamela Murphy
Dianne Nau
Stephanie Rogers
Kathleen Russell
Rosena Saunders
Colleen Shields
Dr. Kevin Sullivan

FY09

Aleks Casper
Pat Caulk
Megan Giovanelli
Susan Greenstein
Katherine Grey
Dr. David Hack
Dr. Richard Henderson
Moonyeen Klopfenstein
Judith Ann Moore
Anita Muir
Pamela Murphy
Dianne Nau
Stephanie Rogers
Kathleen Russell
Colleen Shields
Miriam Sigler

FIMR New Castle County Case Review Team

FY08

Claudia Allis
Mary Ann Crosley
Deborah Bailey
Terry Dombrowski
Vonna Drayton
Dr. Katherine Esterly
Cathie Frost
Cynthia Genau
Barbara Hobbs
Janine Howard-O'Rangers
John Holden
Cortney Jones
Dr. Amanda Kay
Dr. Kevin Kelley
Moonyeen Klopfenstein
Kristine Kmetz-Saladini
Leslie Kosek
Rebecca Levin
Mark Meister
Carmen Mendez
Anita Muir
Karen Neil
Oluyemi Olowu-Awodiya
Virginia Phillips
Sue Samuels
Dr. Wendy Sturtz
Clare Szymanski
Catherine Townsend
Blake Turnbull
Linda Vincent

FY09

Mary Ann Crosley
Terry Dombrowski
Vonna Drayton
Dr. Katherine Esterly
Sonya Feinberg
Cathie Frost
Barbara Hobbs
Cortney Jones
Dr. Amanda Kay
Dr. Kevin Kelley
Kristine Kmetz-Saladini
Oluyemi Olowu-Awodiya
Virginia Phillips
Nikki Stryker
Dr. Wendy Sturtz
Elizabeth Susherba
Clare Szymanski
Catherine Townsend
Blake Turnbull

FIMR Kent and Sussex Case Review Team

FY08

Prue Albright
Claudia Allis
Maddy Anderson
Sandra Bibb
Linda Brauchler
Bridget Buckaloo
Anne Camasso
Lee Cetrano
Patricia Ciranni
Dr. Jacqueline Christman
Freda Collins
Molly Droddy
Alice Edgell
Sandra Elliott
Maureen Ewadinger
Susan Greenstein
Arlana Harriford
Andrea Hinson
Nanette Holmes
Karen Kelly
Loretta Nixon
Rosemarie Pomilla
Sharon Painter
Clare Szymanski
Bridget Wheatley

FIMR Kent and Sussex Case Review Team

FY09

Prue Albright
Sandra Bibb
Linda Brauchler
Bridget Buckaloo
Dr. Jacqueline Christman
Patricia Ciranni
Freda Collins
Dr. Garrett Colmorgen
Sandra Elliott
Maureen Ewadinger
Andrea Hinson
Nanette Holmes
Beth Keena
Karen Kelly
Ronnie Kopec
Bridget Wheatley

CDNDSC Interns

Molly Bevans (FY08)
Julie Chiquoine, NP (FY08)
Shelby Dentino (FY08)
Nicole Diamond (FY08)
Sarah Evans, RN (FY08)
Lenn-Cola Parker (FY09)
Jennfier Scalia (FY09)
Alissa Werzen (FY09)

CDNDSC Location and Staff

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Every Child Deserves a Tomorrow

This annual report is dedicated to the children who continue to lose their lives due to abuse and neglect, motor vehicle crashes, suicide, accidental causes, and medical conditions.

I want to thank the Child Death Review Panel members and the FIMR case review team members for their volunteer service that is given with passion and expertise. I especially want to acknowledge the hard-working CDNDSC staff: Michael, Kristin, Joan, Angela, and Ashlee. I am grateful to Dr. Judith Tobin (Office of the Medical Examiner), who retired after 30 years of public service, including serving on the Kent/Sussex Child Death Panel for 14 years.

A special thanks to Dr. Meena Ramakrishnan; Marjorie L. Hershberger, MS, RN, BC, PNP-BC, CPNP; Sharon Larson, RN; and Laurel Haring for their continued efforts and creative talents in supporting the mission of CDNDSC.

In closing, I'd like to make a special tribute to Bryan Martin, whose torture and death started Delaware on a path of continual self-improvement in the child protection community. He truly altered my career and ignited a life-long passion within me.

Anne Pedrick

CDNDSC Executive Director

Every Child Deserves A Tomorrow

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Child Death, Near Death and Stillbirth Commission
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Wilmington, DE 19801-3341