Examining Child Fatality Review Teams and Cross-System Fatality Reviews to Promote the Safety of Children and Youth at Risk

Fatality Review Teams: A Literature Review

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SECTION 1. INTRODUCTION

Fatality review processes provide a critical opportunity to gain a better understanding of the causes and circumstances surrounding unexpected deaths. This knowledge may be used to implement system changes in policies, practices, and procedures to prevent future child deaths. In 2011, the Children's Bureau, Administration on Children Youth and Families (ACYF) in the U.S. Department of Health and Human Services (HHS) funded a study to examine the recommendations of child death review (CDR) teams and related fatality review entities citizen review panel fatality review (CRP), fetal and infant mortality review (FIMR), and domestic violence fatality review (DVFR). The purpose of the study was to identify promising practices for the fatality review and for furthering collaboration for preventing death of children with a focus on children who are involved with or at risk of involvement with child protective services (CPS). This literature review was conducted as one of four major components of the funded study. Other study components included a review of recommendations and outcomes from CDR, CRP, FIMR, and DVFR teams; site visits in four jurisdictions that have overcome challenges and barriers to conducting effective reviews and have implemented strategies for maximizing the impact of their review teams; and a national meeting to share the findings from the project and obtain feedback from the participants regarding these findings.

1.1 BACKGROUND

The following paragraphs provide brief summaries of four fatality review processes and discuss the history, purpose, structure, and scope of each process.

Child Death Review (CDR)

The first CDR teams were developed in response to rising concerns that the number of child deaths due to maltreatment was increasing and that many cases of inflicted injury or child homicide were being overlooked or misclassified (Johnston & Covington, 2011). Most State CDR teams were established in the 1990s. The early goal was to better investigate, identify, and prosecute perpetrators of fatal child maltreatment (M. Durfee, Parra, & R. Alexander, 2009; Covington, Rich, & Gardner, 2007). In the 1990s, both the Maternal and Child Health Bureau and the Advisory Board on Child Abuse and Neglect called for the expansion of CDR programs. In response, many CDR teams expanded to include a broader focus on examining the causes and circumstances of all child fatalities with the goal of preventing future deaths (Johnston & Covington, 2010; M. Durfee, Parra, & R. Alexander, 2009; Covington, Rich, & Gardner, 2007).

The overall purpose of CDR teams is to review deaths to better understand how children die and use the review process to suggest actions that would prevent future deaths (Covington, 2010). Another purpose for the reviews is to improve the classification of child deaths due to maltreatment. The premise is that by bringing professionals from various agencies and disciplines together to share information, child fatalities due to maltreatment would be better identified (Webster & Schnitzer, 2007). Some CDR teams also have the stated purpose of proposing effective interventions on behalf of surviving children and assisting in the prosecution of child maltreatment fatalities (Webster & Schnitzer, 2007).

In the 1990s, most CDR teams were administratively housed and supported by the department of social services or the State attorneys general's offices. More recently, many are administratively housed within public health departments. According to Covington (2010), of 42 CDR teams, 27 are coordinated and supported by State health departments, 11 by social services agencies, and 3 are housed in attorneys generals offices. Others are in a variety of organizations including State child advocate's offices, State universities, and courts.

In 2010, all but one State had a CDR process in place. Thirty-eight States have a network of local CDR teams at the county level, city level, or at the regional level. Thirty-five States have state-level advisory boards that either review individual cases or review the local findings and make recommendations for improvement to State policy and practice (Covington, 2010).

Citizen Review Panel (CRP)

In 1996, Congress passed amendments to the Child Abuse Prevention and Treatment Act (CAPTA) (P.L. 104–235). As a condition of receiving CAPTA funds, States were required to establish at least three citizen review panels to develop recommendations for improving the States' child welfare systems. At a minimum, these panels were mandated to assess agency compliance with the review of child fatalities, foster care and adoption services, and child abuse prevention services. States were given the flexibility to use existing review panels, such as CDR teams, to serve as their citizen review panel for the review of child fatalities (Collins-Camargo, Jones, & Krusich, 2009). For purposes of this literature review, citizen review panel fatality reviews (CRP) are conducted by teams that were established separately and are distinct from CDR teams.

CRPs are different from CDRs in that they review only those fatalities of children who were known to the State child welfare agency or to child protective services (CPS). In addition, the purpose of the review is to identify child welfare practices and policies that may have been a factor in the fatality. CRPs may review procedures for screening and intake of reports of abuse and neglect, investigation of reports, and the types of services provided. They also may assess issues related to training, caseworker caseloads, and supervision (Palusci, 2010).

According to a survey conducted by the National Center for the Review and Prevention of Child Deaths (NCRPCD), 17 States indicated that the CDR team had assumed the responsibilities for review of child fatalities for children involved with child welfare (National Center for Child Death Review, 2011).

Fetal and Infant Mortality Review (FIMR)

FIMR is a public health strategy developed in the 1980s in response to the growing concern over infant mortality trends. For much of the 20th century, there were significant reductions in maternal and infant mortality rates and improved quality of care for at-risk mothers and infants. However, in the 1980s, the rates began to rise in some cities and the overall rate of decline slowed. There also were numerous media stories about an infant mortality crisis and a call for a better understanding of data on infant mortality (Koontz, Buckley, & Ruderman, 2004).

FIMR is a community-based process with the purpose of improving services and resources for women, infants, and families with the long-term goal of reducing infant mortality (Hutchins,

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Grason, & Handler, 2004). Typically, FIMRs are organized into two teams with two specific functions—case review teams (CRT) and community action teams (CAT). CRTs review deidentified cases of fetal and infant deaths and consider the social, economic, cultural, safety, and education issues in each community, which can affect fetal and infant fatalities (Hutchins et al., 2004). CATs facilitate the implementation of recommendations made by the CRTs. Key members of the community serve on the CATs.

Local health departments and community-based organizations typically administer FIMRs. Coalitions and collaboratives also serve as the organizational home for FIMRs (Hutchins, Grason, & Handler, 2004). During the past two decades, the use of FIMR has grown from six pilot communities in 1984 to more than 200 FIMR programs in 40 States today (Davidson, 2011).

Domestic Violence Fatality Review (DVFR)

Traditionally, the goal for reviews of cases of domestic violence fatalities was to identify the perpetrators and hold them accountable through the criminal justice system (Websdale, Town, & Johnson, 1999). During the last 15 years, DVFR teams were established to understand and prevent future deaths related to domestic violence. The DVFR process consists of reviewing a number of deaths over a defined period of time and looking for common issues, trends, and missed opportunities for intervention. Websdale (2003) compares DVFR to the inspection of the "black box" following an airplane crash to find ways to prevent future crashes.

The principal purpose of DVFR is to reduce these deaths through the identification of issues in service delivery systems—including the criminal justice system—that, if addressed, may prevent future injuries and deaths from domestic violence. The focus of the reviews is to discover factors that will improve identification, intervention, and prevention efforts; preserve the safety of battered women and their children; and hold perpetrators of domestic violence accountable (Websdale, 2003; Wilson, & Websdale, 2006). Other goals identified in the literature are identifying homicides resulting from intimate partner violence, increasing knowledge, and fostering collaboration (Watt, 2010).

DVFR teams are housed in a range of community-based organizations, health agencies, and criminal justice offices (Watt, 2010) including domestic violence coordinating councils, coroners' or medical examiners' offices, prosecuting attorneys' offices, and batterers' intervention programs. As of 2011, there were DVFR initiatives in 43 States and a total of 144 DVFR teams at the local and State levels (Wieglus, 2010).

1.2 METHODOLOGY

This literature review includes an examination of articles, reports, book chapters, and other documents that provide information about (1) practices for conducting fatality reviews, and (2) outcomes resulting from the fatality review processes published primarily within the last 10 years. The following paragraphs discuss the methodologies that were used to conduct this literature review.

Literature

The articles and reports listed in a bibliography compiled by the National Center for the Review and Prevention of Child Deaths (NCRPCD) (formerly the National Center for Child Death Review) were reviewed for applicability. In parallel with selecting articles from this bibliography, an online document search was conducted using multiple database sources. These sources included the Child Welfare Information Gateway and OVID. OVID includes PsycINFO, PubMed, HighWire at Stanford University, and WorldCat. In addition, databases of three publishers were searched—EBSCO Publishing, Wiley, and SpringerLink. The comprehensive search used the following key terms: child death, child death review, child fatality review, death review, fatality review, domestic violence death review, fetal infant mortality review, and citizen review panel. More advanced Boolean combinations of these and other additional terms also were used.

The literature search resulted in citations of 133 documents that were entered into a Microsoft Access database. The abstract of each document was reviewed to determine which articles would be selected for a further detailed review. Eighty-one articles were selected for a full-text review and content analysis based on their value to this study. Bibliographic information and other key information were recorded using a uniform template. Once the full-text reviews were completed, article summaries were sorted into content area (domains) using a taxonomy developed for organizing the recommendations identified through the literature. Next, the articles were analyzed and themes were identified.

Logic Model

Following the initial analysis of the articles, a logic model was developed to represent the flow of the inputs, processes, and results of fatality reviews. The logic model was created to clarify the discussion of key recommendations in the literature (See figure 1). The logic model describes the resources and activities that are required to implement fatality reviews, and the intended results in terms of outputs, outcomes, and impact. Outputs are the products of program activities. Outcomes are the specific changes in knowledge, policy, and practice. Impact is the fundamental change that is intended from the process (W.K. Kellogg Foundation, 2004).

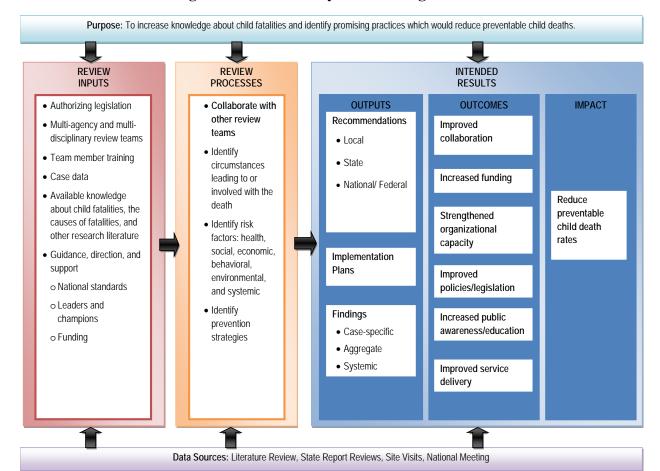


Figure 1. Child Fatality Reviews Logic Model

1.3 REPORT STRUCTURE

The findings from the literature review are organized based on the logic model and are discussed in greater detail in the following sections:

- Section 1. Introduction
- Section 2. Inputs to Fatality Reviews
- Section 3. Fatality Review Processes
- Section 4. Outputs of Fatality Review Teams
- Section 5. Outcomes of Fatality Review Teams
- Section 6. Impact of Fatality Review Teams

The bibliography for this review can be found in appendix A.

SECTION 2. INPUTS TO FATALITY REVIEWS

Review teams have different types of inputs, which may determine the effectiveness of the review team process and the quality of the work they do. The most important inputs identified in the literature include: authorizing legislation; scope of the review; composition and training of review teams; access to relevant information; and guidance, direction, and support for the review teams.

2.1 AUTHORIZING LEGISLATION AND POLICY

The creation of a fatality review team depends upon the existence of an environment that is conducive to the development of an appropriate infrastructure and resources that would support its full implementation. Authorizing legislation is a key support for the establishment of fatality review teams at the State and local levels. Legislation can serve to facilitate, legitimize, and sustain the work review teams perform. In turn, this may affect the quality of the recommendations they generate, and ultimately influence system and policy change and the prevention of future deaths. The information found in the literature regarding this fundamental issue is presented below.

Child Death Review (CDR)

The enactment of legislation to establish and implement child death review (CDR) teams is essential for sustaining and expanding these programs across the nation. Some States began implementing review teams before they were officially recognized by their State legislatures. By 2001, 67 percent of States had enabling legislation for CDRs (Douglas & Cunningham, 2008). Currently, most States have legislation that enable or mandate CDR implementation (Shanley, Risch, & Bonner, 2010). State authorizing legislation varies greatly making universal guidelines difficult to implement (Association of State and Territorial Health Officials, 2004).

Authorizing legislation for fatality reviews usually provides mandates regarding the establishment of the basic components of the teams and protection for their work products (Covington & Johnston, 2011; Hochstadt, 2006). These mandates include:

- team membership
- fatality review parameters
 - o age
 - o types of deaths
- number of meetings
- administration agency
- reporting requirements

The literature indicates that legislation also may be necessary to support and advance the efforts of CDR teams. Some of the potential advantages of having CDR legislation include the standardization of process and data collection, authorization of a more centralized process, clarification of responsibility for oversight of CDRs, and legal protection of CDR members from litigation and liability and the creation of confidentiality protocols (Webster & Schnitzer, 2007). Legislation also may strengthen and enhance program efforts, legitimize the process at the local level, and improve interagency information sharing (Williams-Mbengue, 2004). Covington,

Rich, and Gardner (2007) highlight some key elements that should be considered in any legislation that supports comprehensive State and local CDR programs. These include:

- program purpose
- program funding sources
- lead agency responsibilities
- advisory Committee
 - o purposes
 - o duties
 - o members
 - o chair person designee
 - o chair person term of service
 - o report of team findings
- review team
 - o purposes
 - o duties
 - o members
 - o chair person designee
 - o chair person term of service
 - o training support
 - o technical assistance support
 - o access to fatality records and data
- confidentiality protection
 - o for team meeting
 - o case review records
- reports of individual case reviews
- reports to the legislature

The literature reveals that one of the most consistent supports for the development of Federal and State legislation to improve the CDR process comes from the American Academy of Pediatrics (AAP). This organization recommends that pediatricians become involved in local and State child death reviews (Christian & Sege, 2010). The AAP also recommends supporting State legislation with the establishment of child fatality reviews at the local and State levels and helping to establish such teams. It also supports State legislation requiring autopsies for unexpected or suspicious deaths to facilitate the work of CDR teams (M. Durfee, Parra, & R. Alexander, 2009).

Citizen Review Panel (CRP)

Citizen review panels were required as part of the 1996 amendments to the CAPTA. CAPTA requires that a citizen review panel consists of community members, meets at least once every 3 months, and submits an annual report to the Federal government outlining their activities and recommendations. States were also given the option of using existing panels to fulfill the CAPTA requirements (Jones, 2003). Citizen review panels are required to assess the child welfare agency's compliance with the State CAPTA plan; coordination with the title IV–E foster care and adoption programs; to assess the CPS agency in its compliance with the review of child fatalities; and to evaluate any other piece of the CPS system that the teams deem important (Bryan, Jones, Allen, & Collins-Camargo, 2007).

Bryan, Jones, Allen, and Collins-Camargo (2007) suggest additional work is needed to create and pass State-level legislation to clarify the purpose, role, and duties of citizen review panels. The scope of their efforts, the level of accountability of the panels, the agency, and other partners responsible for child welfare within the State need to be better identified. The literature also suggests that the legislative basis of the process could be strengthened by better formalizing and improving communication between the panels and State-level CPS agencies, training and assisting members to better understand CPS practices, and enhancing State responses to CRP's reports (Palusci, 2010).

Fetal and Infant Mortality Review (FIMR)

The literature provides little information regarding legislation and the development and implementation of FIMR programs. It is indicated that FIMRs commonly are guided by general State public health law. There also may be specific State FIMR laws. The literature also suggests that legislation is critical to FIMR as it reassures members of the teams that they can participate without legal repercussions (Hutchins, Grason, & Handler, 2004).

The literature discusses the importance of the role that Title V of the Social Security Act has played in the creation and operation of FIMR programs. State Title V programs are focused on preventing death, disease, and disability, and ensuring access to health care for women and children. As these programs have evolved, they have transitioned from providing direct services to assessment, policy development, and ensuring the provision of essential services. The development and support of FIMRs has been an important part of these efforts (Grason, Silver, & State Title V Program Representatives, 2004). Specific recommendations related to policy or legislative factors that support the establishment, administration, and implementation of FIMR teams are not widely discussed in the literature.

Domestic Violence Fatality Review (DVFR)

The importance and significance of legislative protection for DVFR teams is acknowledged in one document. Websdale (2003) indicates that authorization has been sought by review teams to address "concerns about confidentiality, liability, and immunity." He suggests that legislation would provide teams with necessary access to confidential information, prevent information reviewed from being subject to subpoena or discovery, and provide immunity for all members of the team from civil or criminal liability for an activity related to the review of death. Additional information concerning legislation or executive orders to support the establishment and enhance DVFR was not found in the literature.

2.2 SCOPE OF REVIEW

The scope of the fatality review determines the parameters that teams follow when collecting, reviewing, and analyzing the information included during the review process. The accuracy, specificity, timeliness, and breadth of the data collected influence the quality and effectiveness of the recommendations that are generated by a death review team. Therefore, this aspect of the review process is significant and worth considering when looking at ways to improve the fatality review process. An overview of the scope of the review for each of the fatality review teams and the related promising practices found in the literature are included below.

Child Death Review (CDR)

In conducting a review of a child fatality, the literature demonstrates that CDR teams typically request and review past records from agencies or service providers that may have been involved with the victim or family prior to the death (M. Durfee, D.T. Durfee, & West, 2002). When selecting cases to be reviewed, many CDR programs rely on other agencies to determine or screen for child abuse and neglect (Shanley, 2010). The information that a team is able to request and review may depend on its subpoena power, or its ability to legally command receipt of evidence and information (Webster, Schnitzer, Jenny, Ewigman, & Alario, 2003). Review teams usually request records about the victim, surviving sibling(s), and caregivers (Douglas & Cunningham, 2008). The data on the child, the family, the community, and the circumstances leading up to the death can be obtained from a wide variety of sources (M. Durfee, Parra, & R. Alexander, 2009; Hochstadt, 2006; Hutchins, Grason, & Handler, 2004) that may include:

- death certificates
- medical records
- case records
- law enforcement
- protective services agencies
- public health
- coroner or medical examiner
- corrections
- mental health
- autopsy results

The extent of the types of child deaths that are reviewed by CDR teams varies (Smith et al., 2011; Douglas & Cunningham, 2008). Currently, every State reviews deaths of children up to age 18, and most review deaths from accidents, homicides, and suicides (Covington, 2010). Some States focus solely on fatalities resulting from child abuse and neglect, while others are more inclusive in their approach and investigate all child fatalities (M. Durfee, Parra, & R. Alexander, 2009). State legislation usually dictates whether teams may review all deaths of children under a specified age or only selected fatalities (Hochstadt, 2006).

The timing of the reviews varies by State. Two major types of reviews are conducted—retrospective reviews and immediate response reviews. Retrospective reviews take place after the completion of the investigations and the information gathering process. This method is frequently used by review teams and typically influences system and procedural changes for future investigations and service delivery. It also allows time for the identification of risk factors that can lead to prevention initiatives (Covington, 2007; Webster, 2007). Reviews usually begin during the 3rd month after the death incident (Hutchins, 2004). Immediate response reviews occur within 24–48 hours of the child's death. These reviews will impact the investigation processes in addition to identifying recommendations for prevention (Covington, Rich, & Gardner, 2007; Webster & Schnitzer, 2007).

Child deaths are reviewed at the county, regional, and State levels. At times, cases that are reviewed may cross county lines and regions, and review teams have to learn how to follow data trails to retrieve the needed information (M. Durfee, Parra, & R. Alexander, 2009). CDR team discussions of the information gathered is focused on understanding and documenting the

collective risk factors associated with the death and then identifying strategies to minimize these risks (Schnitzer & Covington, 2010). The review is not an anonymous process. Medical, social service, and child welfare records of the child and family are brought to the review. CDR teams, however, have processes in place to ensure the confidentiality of the information (Hutchins, Grason, & Handler, 2004).

The literature reveals a few recommended practices that may help enhance the CDR process. Varying definitions of child abuse and neglect from criminal, civil, and public health perspectives can affect the uniform counting of maltreatment deaths. The literature suggests establishing uniform definitions for child maltreatment. For example, the California Department of Health created a decision matrix to assist local CDR teams reach a consensus on the classification of maltreatment deaths (Schnitzer & Covington, 2010; Webster & Schnitzer, 2007). One author suggests that CDR teams conduct interviews with the family for each case as part of their data collection efforts as is done in FIMRs (Hutchins, 2004). Hutchins (2002) suggests that these interviews may assist CDRs in better understanding the family culture and environment (Hutchins, 2002). The literature also suggests a need for comprehensive review of all child deaths (Shanley, Risch, & Bonner, 2010). R. Alexander (2007), however, suggests that teams need to consider the advantages and disadvantages of the scope of their reviews and determine whether anything would be gained by a more expansive review of child deaths.

Citizen Review Panel Fatality Reviews (CRP)

CRP teams review deaths of only those children who were involved with the State child protective services or child welfare systems. Potential maltreatment deaths are identified for children birth–18 years of age by cross-matching death certificate information collected by State vital statistics, county-based child death review team reports, and State department of human services death abstracts. Published news reports and obituaries are also consulted during the review process. Cases are selected for CRP when the death is reported to the National Child Abuse and Neglect Data System (NCANDS), is deemed to be caused by abuse or neglect using State criminal and civil definitions of maltreatment, or when the panel determines that there were serious acts of omission leading to a death, independent of legal determinations (Palusci, 2010). The literature does not reveal any specific recommended promising practices concerning the scope of the review of CRP teams.

Fetal and Infant Mortality Review (FIMR)

The FIMR's case review process is a community-based and systematic process that typically takes place 6–8 months after the death. Reviews are usually spearheaded by the case review team (CRT). The information analyzed during a CRT process includes a variety of institutional data and public health data. The health department, or a contracted agency, obtains protected health information that is necessary to conduct a comprehensive case review. This may include information on prenatal care, maternal hospitalizations and postnatal care, hospital birth and death records, in and out-patient pediatric records, and autopsy results. Information is also sought from additional social service records. Information is also obtained in a structured interview with the family, usually the mother (Hutchins, Grason, & Handler, 2004; National Fetal and Infant Mortality Review Program, 2001). These interviews have been found to be an effective component for generating enriched information on the services, the community resources

available, and on the cultural context of the family and community (Hutchins, Grason, & Handler, 2004).

The goal of a FIMR is to conduct in-depth reviews of all local fetal and infant deaths (children younger than one year old). If the overall number of deaths is too great, the team may review a random sample of deaths (NFIMR, 2001). All identifying information including names of families, providers, and institutions is removed before it is included in a case summary report. The case summary report is prepared and presented to the CRT for review and discussion (Johnston, Malnory, Nowak, & Kelber, 2011). De-identification is said to reinforce the notion that FIMRs are not about assigning blame but obtaining a better understanding of cases to prevent future deaths (Hutchins, 2002). Recommendations developed by the CRT are provided to the Community Action Team (CAT) for implementation.

Domestic Violence Fatality Review (DVFR)

DVFR programs vary in their administration and operation depending on the setting in which it is implemented. DVFR processes are formal or informal and the amount of data collected is contingent upon the availability of local resources (Websdale, 2003). The literature indicates that DVFR teams review deaths that are often identified from police records, the medical examiners' offices, or newspapers. Some teams collect information through interviews with family members or professionals. The focus of the review is usually on the incident, indications of past abuse, and the psychosocial, relationship, and criminal history of the individuals involved (Watt, 2010).

The literature reveals that there is a difference in the types of cases reviewed. While some teams review every death, other teams collect aggregate data on all deaths and conduct in-depth investigations on fewer cases (Wilson & Websdale, 2006). For instance, some teams only review deaths perpetrated by a current or former intimate partner. Other teams review any death that occurs in the context of domestic violence, which may include suicides of perpetrators, homicides of children, or new intimate partners (Watt, 2010). In some jurisdictions, reviews are conducted for deaths and near deaths in which the death may not have been identified as being caused by domestic violence. Examples include deaths of prostitutes, suicides, suspicious deaths, accidents, and disappearances, and deaths of women with Human Immunodeficiency Virus (HIV), homeless women, and drug-addicted women (Fatality Review Bulletin, 2010; Wilson & Websdale, 2006).

There is little information found in the literature with respect to specific recommended promising practices within this area. However, the notion that DVFR programs consider cases where battered women committed suicide to identify missed opportunities for support and intervention is supported (Wielgus, 2010). The inclusion of these additional cases may help to develop recommendations for systemic reform to prevent suicide and suicide attempts by battered women.

2.3 COMPOSITION AND TRAINING OF REVIEW TEAMS

Although team composition of fatality review teams varies, they are all interagency and multidisciplinary in nature. Following is an overview of the composition and training of each of the fatality review teams and the promising practices discussed in the literature.

Child Death Reviews (CDR)

Child Death Review (CDR) teams can vary in size ranging from 5–50 people depending upon where the team operates, whether it is a State or local team, and the needs and resources of the community (Covington, Rich, & Gardner, 2007). Certain members may be required to be part of a team by legislation or policy. Other members may be chosen from agencies that have jurisdictional responsibility to respond to child fatalities or are in a position to obtain support for, or implement the suggested recommendations (Covington, Rich, & Gardner, 2007). The team membership typically includes medical examiners or coroners, law enforcement personnel, public health officials, prosecutors or district attorneys, health care providers, emergency medical services, and representatives from health and social service agencies including child protective services (M. Durfee, Parra, & R. Alexander, 2009; Covington, Rich, & Gardner, 2007). Some teams include additional members, on a regular or an ad hoc basis, to provide particular expertise for specific reviews. These additional members may include representatives from other disciplines such as domestic violence, education, mental health, substance abuse treatment, juvenile justice, court-appointed special advocates, Sudden Infant Death Syndrome (SIDS) experts, legislators, clergy, and vital statistics (M. Durfee, Parra, & R. Alexander, 2009; Covington, Rich, & Gardner, 2007).

The critical importance of pediatricians and health educators on CDR teams is discussed in the literature. Batra and Palusci (2008) argue that pediatricians are necessary to the process given that much of the information provided at the meetings requires a pediatric background to understand and interpret autopsy reports, hospital summaries, and emergency medical services logs. The American Academy of Pediatrics also identifies the need for pediatricians to be part of local and State CDR teams (Christian & Sege, 2010). Noland, Joly, and Liller (2000) indicate that health educators can conduct thorough reviews of literature to assist in the planning, implementation and evaluation of targeted and integrated injury prevention programs. They also can collaborate with social work, mental health, other health professionals, and the schools in the dissemination of information and the conduct of educational initiatives.

Covington, Rich, and Gardner (2007) state that the most successful CDR teams include:

- representatives from the community or State agencies with responsibilities for the investigation or prevention of unexpected deaths
- representatives of the community or State agencies responsible for protecting the health and well-being of children and families
- representatives of the populations most at-risk and affected by fatalities
- members willing to advocate for and assist with the implementation of prevention strategies
- members able to be open, honest, and cooperative in the process of review

According to Shanley, Risch, and Bonner (2010), there is very little formal, standardized, or mandated training provided for CDR teams. Yet, training has been identified as a key factor that

contributes to the success of teams. Training informs members about new research on different types of deaths, can help members develop critical skills for conducting reviews, and identify prevention strategies (Covington, Rich, and Gardner, 2007).

Citizen Review Panel (CRP)

CAPTA requires that citizen review panels be composed of volunteer members who are broadly representative of the community in which they operate and include at least one person with expertise in the prevention and treatment of child abuse and neglect. If a State uses its CDR team as its citizen review panel for reviewing child fatalities, then a representative sample of nonprofessional community members must be included on the team to be in compliance with the mandates (Palusci, 2010; Collins-Camargo, Jones, & Krusich, 2009). Typically, citizen review panels include medical examiners, law enforcement, child protective services, and legal professionals. Many teams also include child abuse pediatricians, education professionals, public health officials, and clients of the child welfare system (Palusci, 2010).

The recent literature suggests that there is some concern that citizen volunteers who serve on citizen review panels do not have sufficient knowledge of the child welfare system and the nature of the bureaucracy. Further, they may not have a clear understanding that some issues that need to be resolved are beyond the child welfare agency's reach (Bryan, Jones, Allen, & Collins-Camargo, 2007). In the study conducted by Bryan, Collins-Camargo, and Jones (2011), citizen review panel members indicated that educating members on a range of child welfare topics would improve their ability to be effective.

Fetal and Infant Mortality Review (FIMR)

As discussed previously, the FIMR model promotes a two-tiered process that consists of a case review team (CRT) and a Community Acton Team (CAT). The total number of team members for both teams can range from 30–50 people (NFIMR, 2000). CRTs are usually comprised predominantly of medical and public health professionals. They may include representatives from the health department, primary and tertiary care institutions, obstetric and pediatric providers, hospital administrators, Medicaid, family planning providers, health educators, community health workers, drug treatment center representatives, and bereavement specialists (Hutchins, Grason, & Handler, 2004). Some members of the CRT may also serve on the CAT (e.g., commissioner of health, director of social services). CATs also may include legislators, representatives from faith communities, directors of local government agencies, families, and consumer advocates that represent the diverse ethnic and cultural groups in the community (Hutchins, Grason, & Handler, 2004).

Misra et al., (2004), found that a higher percentage of reported recommendations were implemented among FIMR programs in which the director or staff received training related to perinatal health issues and developing and implementing strategies for systems change. In addition, training in coalition building and group process is identified as key factor for successful FIMR teams (NFIMR, 2001).

Domestic Violence Fatality Review (DVFR)

DVFR teams are usually composed of a group of individuals from multiple disciplines and agencies that have access to information and expertise concerning intimate partner violence

(Watt, 2008). Members are often representatives from law enforcement, health care, social services or education (Wilson & Websdale, 2006; Watt, 2010). It has been suggested that members of the public be included on the teams in order to foster transparency and public voice. It is also suggested that advocates for victims of domestic violence be included to assure that the perspectives of the victims are incorporated into the development of the strategies and policies for prevention (Watt, 2008). Additional members may also be included in DVFR teams to provide case-specific of policy-related information (Watt, 2008).

There is nothing specific in the literature regarding the training that should be provided to DVFR teams. Watt (2008), however, notes that DVFR teams could greatly benefit from having access to current research to further their understanding of the diverse contexts and processes contributing to domestic violence.

2.4 ACCESS TO RELEVANT INFORMATION

Comprehensive information on the death and the circumstances surrounding it are critical to all fatality reviews. Each gathers the information from relevant sources in the form of records, presence of relevant officials at review meetings, and, in the case of FIMR, maternal interviews.

Child Death Review (CDR)

Information from multiple sources on the circumstances surrounding the death is critical to ensuring a comprehensive CDR process (Covington, Rich, & Gardner, 2007; Rimsa, Schackner, Bowen, & Williams, 2002; Watt, 2008; Websdale, 2003). Not having access to records presents a barrier that could affect the quality and accuracy of a review process. Limited access to records prevents teams from consistently assessing and ascertaining information that may be vital to the review (Crume, DiGuiseppi, Byers, Sirotnak, & Garrett, 2002).

In many States, legislation establishing CDR teams gives the teams the ability to collect and compile data from a wide variety of sources. Teams typically obtain and review the following types of records: police, medical, child protective services (CPS), public health, medical examiner or coroner, corrections, mental health, and any other relevant documents that provide insight into the cause and preventability of a child's death (Rimsa, Schackner, Bowen, & Williams, 2002; Hochstadt, 2006).

Citizen Review Panel (CRP)

States are required to provide citizen review panel members with case-level information that the panels deem necessary for them to carry out their mission. Members conduct analyses of statewide data information systems, review agency policies and procedures, and conduct community forums or focus groups with agency staff, service providers, consumers, and others that may provide critical information (Jones & Royse, 2008). Evaluations of the effectiveness of citizen review panels have pointed to the importance of access by the panels to sufficient data as critical to their effectiveness (Jones & Royse, 2008; Bryan, Jones, & Lawson, 2010; Jones, 2003).

Fetal and Infant Mortality Review (FIMR)

In contrast to the other review types, the information reviewed by FIMR teams is de-identified. The names of families, providers, and institutions are kept confidential and anonymous (NFIMR,

2000). Family interviews are conducted and are considered an integral part of the FIMR process. The interview not only provides valuable information, but is an opportunity to provide the families with support and referrals to be eavement and other social services (Hutchins, 2002). Similar to the other fatality review processes, the FIMR process requires the compilation of information for the conduct of a comprehensive case review. The health department or a contracted agency obtains protected health information, which is documented in a FIMR abstract. It includes information on prenatal care, maternal hospitalization, hospital birth records, postnatal care, and in-patient and out-patient pediatric records (Johnson, Malnory, Nowak, & Kelber, 2011.)

Domestic Violence Fatality Reviews (DVFR)

The information collected by DVFR teams varies. In general, information is collected about the incident; indications of past abuse; and the psychosocial, relationship, and criminal background of the individuals involved. Information is often obtained from police records, medical examiner or coroner reports, court documents, medical records, mental health records, and social service reports. Some DVFR teams may interview family members or professionals that may have been involved with the victim (Watt, 2008).

An emerging issue for DVFR teams is whether to empower teams to administer oaths and to compel the attendance of witnesses whose testimony is related to the death under review. Some teams also have the authority to compel the production of records related to the death by filing a request for a subpoena through the attorney general. Some advocates have argued for not moving toward a more formal process for DVFR teams (Websdale, Town, & Johnson, 1999; Watt, 2008).

2.5 GUIDANCE, DIRECTION, AND SUPPORT FOR FATALITY REVIEWS

All four types of fatality reviews discussed in this literature review have national resource centers, conferences, and opportunities for sharing information. However, they have different Federal connections and interactions.

Child Death Review (CDR)

Since 2001, the National Center for the Review and Prevention of Child Deaths (NCRPCD) has received support from the Department of Health and Human Services, Health Resources Services Administration, Maternal and Child Health Bureau and Child Health to promote, support, and enhance child death review methodology and activities (Covington, 2010). The Center also is supported by the Centers for Disease Control and Prevention to partner in development of a national Sudden Unexpected Infant Death case registry (Shapiro-Mendoza, Kimball, Tomashek, Anderson, & Blanding, 2009).

The literature contains recommendations for national leadership to improve the CDR process by:

- enacting Federal legislation that mandates CDR (ASTHO, 2004; Webster, Schnitzer, Jenny, Ewigman, & Alario, 2003)
- providing Federal funding of CDR programs (Schnitzer & Covington, 2010; Williams-Mbengue, 2004)

- assisting in the standardization of the CDR process (American Academy of Pediatrics, 2010; Bunting & Reid, 2005; ASTHO, 2004; Webster, Schnitzer, Jenny, Ewigman, & Alario, 2003; Williams-Mbengue, 2004)
- assisting in the collection of common data gathered nationally with appropriate safeguards, and provision for cross-jurisdictional sharing of data (Christian & Sege, 2010; Webster, Schnitzer, Jenny, Ewigman, & Alario, 2003)
- assisting in centralizing the CDR process and program oversight (Webster, Schnitzer, Jenny, Ewigman, & Alario, 2003; Williams-Mbengue, 2004)
- ensuring the legal protection of CDR members from litigation and confidentiality protocols (American Academy of Pediatrics, 2010; Webster, Schnitzer, Jenny, Ewigman, & Alario, 2003)
- developing national standards for child death investigations and data collection (Brixey, Kopp, & Schlotthauer, 2011)
- developing national criteria for quality improvement (American Academy of Pediatrics, 2010)
- supporting the provision of training and technical assistance for CDR team members (Christian & Sege, 2010; Williams-Mbengue, 2004)

The literature indicates that there is a critical need for national surveillance of child maltreatment deaths. A standardized data system is an essential component of such a system. It is also suggested that national leadership is required for its development (Webster & Schnitzer, 2007; Smith, Gibbs, Wetterhall, Schnitzer, Farris, Crosby, & Leeb, 2011).

Citizen Review Panel (CRP)

CRP teams are unique in that they are required by CAPTA. The teams are supported by the National Citizens Review Panels Virtual Community at the University of Kentucky. The literature reviewed for this report concerning CRPs did not mention additional national leadership or funding. The literature on citizen review panels focuses on factors that may enhance their effectiveness. Recommendations for support or leadership at the national level are not identified.

Fetal and Infant Mortality Review (FIMR)

States were initially required to have FIMRs in order to receive Healthy Start funding, but that requirement is no longer in effect. FIMRs are supported by the National Fetal-Infant Mortality Program (NFIMR), which is housed at the American College of Obstetricians and Gynecologists. NFIMR receives funding from Health Resources and Services Administration. In 2004, Johns Hopkins University Medical School conducted an extensive nationwide evaluation of FIMR programs. The evaluation focused on State and community aspects of FIMR rather than on what may be needed at the national level to enhance FIMR programs. Grason, Silver, and State Title V Program Representatives (2004) call for the development of national performance measures applicable to FIMRs similar to those already developed by some States (Grason, Silver, & State Title V Program Representatives, 2004).

Domestic Violence Fatality Review (DVFR)

Watt (2011) posits that the development of DVFR teams in the United States may have been spurred in part by the Violence Against Women Act passed in 1994. In 2002, the National

Domestic Violence Fatality Review Initiative (NDVFRI) was funded by the Office on Violence Against Women in the U.S. Department of Justice to be a clearinghouse and resource center for DVFRs. It posts information about DVFR teams, research articles, review tools, and hosts an annual conference for teams. Through NDVFRI, teams share information and identify strategies for improving the review process (Wilson & Websdale, 2006).

2.6 SUMMARY

Fatality review programs have proliferated and are widespread in the United States. They have become a mechanism for communities to respond in a positive way to the tragedy of fatalities. The information found in the literature regarding legislation and fatality review teams is diverse and covers different areas that affect both the establishment of teams and the improvement to the process. The literature identifies the benefits and positive effects that authorizing legislation may have on the creation, enhancement, and sustainment of fatality review teams.

Information is more commonly found with respect to legislation enacted for CDRs. The benefits of having legislation are identified and mostly relate to enhancing the effectiveness of the process, improving the management of review teams, ensuring the legal protection of their members and confidentiality of the information reviewed. The establishment of CRPs is guided by more direct and specific mandates. The literature indicates that the process could be further strengthened by additional policies to support communication and training, and methods for ensuring the response of the State and child protective services. In the case of FIMRs, legislation is discussed as a foundation for obtaining additional funding. Legislation is only discussed briefly in the literature with respect to DVFRs. The information touches on efforts made by groups to ensure confidentiality and privacy protection and immunity of team members.

The literature reflects the similarity among all fatality review teams in terms of the scope of their review processes. While focused on different target populations, all death teams focus on causes and circumstances that extend beyond the event of death, including both family-related and community-related factors. They all involve data collection activities and information gathering processes that allow teams to determine the specific circumstances surrounding an individual death.

The type of data reviewed is different among teams due to the variety of information sources. Citizen review panels have limited information sources as they focus only on those deaths of children involved with the State child protective services or child welfare systems. The literature showed that there are differences with regard to the timing of reviews, specifically between FIMR and CDR teams. The literature suggests that improving collaboration and developing systems that would allow information sharing among fatality review teams would improve the processes.

There are some challenges identified in the literature to gathering the necessary data for fatality reviews. First, data collection is time consuming. Sufficient time needs to be allocated for this to be done well in advance of the fatality review meeting. Reviews need to be conducted once all data are collected, which could be several months after a death has occurred (Sidebotham, Fox, & Horwath, 2011). Data access and collection can also be challenging in cases when the death occurs in one State and the victim was a resident of a bordering State. Elster and Alcalde (2003)

suggest that interstate compacts may be the mechanism to facilitate sharing of information. Lastly, confidentiality, privacy and issues of immunity must be addressed. Review teams must be aware of any State laws pertaining to the protection of records, disclosure of identities of patients, and having an understanding of any impact the Federal Health Insurance Portability and Accountability Act of 1996 may have on their ability to get health information related to the case (Elster & Alcalde, 2003).

There are great similarities in the membership among the different review teams. Overall, review teams are multidisciplinary entities that involve professionals and experts with different professional backgrounds and degrees of expertise. There are, however, some subtle differences among them. Of the three, FIMR teams, particularly community action teams (CATs), can have a very broad membership that includes the public and private sectors and both professionals and nonprofessionals. This may be due to the fact that FIMR is a community-based intervention for assessing, planning, improving and monitoring community service systems, resources, and supports to promote the health and wellbeing of women, infants and families (Misra et al., 2004). Multidisciplinary and multiagency membership of each of the fatality review teams provides for different perspectives on the cause and circumstances leading to a death. It also facilitates access to information about the case from different agencies, a critical source of data for the review process (Elster & Alcalde, 2003).

The issue of training for fatality review teams is not widely addressed in the literature. This suggests that there is a need for a better understanding of the training needs of fatality review teams and the impact of training on their outcomes.

SECTION 3. FATALITY REVIEW PROCESSES

In general, fatality review teams all follow similar protocols in their review processes. While variations may stem from differences in structure, focus populations, and historical or situational factors, the process tends to encompass three aspects: (1) understanding the circumstances related to the deaths being reviewed, (2) identifying risk factors related to both specific deaths and multiple deaths that have similar circumstances, and (3) offering recommendations to relevant stakeholders and decision makers regarding how to reduce fatalities that share similar circumstances.

The following sections review existing literature that address each of these activities for all four types of child fatality review teams included in this report. The chapter concludes with a review of the literature regarding the importance of collaboration among different types of teams who investigate and make recommendations related to child fatalities.

3.1 UNDERSTANDING THE CIRCUMSTANCES OF DEATH

In 2010, 36 States had a process in place with which to identify specific cases for review and 32 States used formal child and infant death investigation protocols. Eleven States reviewed all serious injuries or near fatalities of children at the State level. In 9 other States these cases were reviewed at the local level. Forty-one States also had complementary processes through citizen review panels, fetal and infant mortality review (FIMR), and domestic violence fatality review (DVFR) teams (National Center for Child Death Review, 2011).

Child Death Review (CDR)

For child death reviews (CDRs), the process may be what is termed either "retrospective" or "immediate." The former takes place after all information is gathered and the investigation has completed related to the case. It is the most frequently used approach, and its goal is to influence policies, procedures, or other related factors that may have contributed to the deaths. This is the approach used when all deaths are reviewed. The "immediate" review is typically initiated within 24–48 hours after an unexpected or unexplained fatality. Its primary goal is to support the larger investigative process and perhaps to protect other children in the family. Many CDR teams use both approaches (Covington, Rich, & Gardner, 2007).

The CDR team examines records from agencies and service providers who were involved with the victim and family (M. Durfee, D.T. Durfee, & West, 2002). Information regarding the child, family, community, and the circumstances leading up to the death, are obtained from sources that may include law enforcement, medical and mental health providers, protective services, public health, coroner or medical examiner, corrections, and mental health (Hochstadt, 2006).

States vary with respect to types of cases that CDRs are required or permitted to review. The number and type of cases reviewed also may vary by community size, number of child deaths per year, ages of children who die, and types of deaths reviewed. The review is not an anonymous process as medical, social service, and child welfare records are reviewed, but CDR teams do take steps to ensure confidentiality both for and among members (Covington, Rich, & Gardner, 2007; Hutchins, Grason, & Handler, 2004).

The literature reflects a shift over time from child maltreatment concerns to what authors refer to as a more "public health" approach. This evolution led many authors to recommend that CDR teams look into all injuries and deaths of infants and children, rather than just those believed to have resulted from maltreatment (S.P. Alexander, 2007; Christian & Sege, 2010; Covington, 2010; Covington, 2011; Douglas & Cunningham, 2008; Hochstadt, 2006; Smith et al., 2011). One reason for this shift was that a significant number of maltreatment deaths have not been recognized as such by medical professionals or law enforcement (M. Durfee, Parra, & R. Alexander, 2009; Schnitzer & Covington, 2010; Shanley, Risch, & Bonner, 2010). One study also noted that, "Whereas the relationship of unintentional injuries to neglect has been studied, similar efforts to determine the relationship of deaths resulting from natural causes and neglect have not been undertaken" (Schnitzer & Covington, 2010).

Teams that do not have the resources to review all required deaths must develop a process to review as many cases as is feasible (R. Alexander, 2007a; Hutchins, Grason, & Handler, 2004). The National Center for the Review and Prevention of Child Deaths (NCRPCD) recommends that, if the number of cases must be limited, the death's potential preventability should be a factor in the choosing those reviewed. A team with restricted access to information may choose to review only those cases for which it has access to adequate information. Teams also may limit selection by manner or cause of death, deaths in a specific geographic location, cases not under litigation, team expertise, or how often the team meets (Covington, Rich, & Gardner, 2007).

Citizen Review Panel (CRP)

Beginning in 1999, every State was required through Federal legislation to establish citizen review panels. The mandated scope of work was broad and included receiving and responding to reports of suspected child maltreatment, investigating cases, and identifying and tracking case outcomes. Citizen review panels also were directed to assess child protection agency compliance with requirements on child fatalities reviews and to formally review child maltreatment fatalities. Citizen review panels also may be instructed to review foster care and adoption services, assess agency staffing levels, examine caseload size and training, make recommendations regarding resource allocation, and monitor compliance with the State CAPTA plan (Bryan, Collins-Camargo, & Jones, 2011; Palusci, 2010).

Many of the recommendations made in the literature regarding citizen review panels were related to improving relationships between them and the child welfare agencies and CDR teams with whom they worked. These included shared planning with child welfare agencies, clear and documented roles with CDR teams, the recruitment of appropriate and knowledgeable members, and cross-training regarding the roles of each group (Bryan, Jones, Allen, & Collins-Camargo, 2007; Bryan, Collins-Camargo, & Jones, 2011; Collins-Camargo, Jones, & Krusich, 2009; Jones, 2008; Palusci, 2010).

Fetal Infant Mortality Review (FIMR)

The FIMR process was initiated in 1984 by the Federal Maternal and Child Health Bureau (MCHB) as a multidisciplinary strategy to address the specific factors and requirements related to fetal and infant mortality (Hutchins, 2002; Koontz, Buckley, & Ruderman, 2004). The work of these teams both overlaps and complements the broader purposes of CDR teams and citizen review panels described above.

A FIMR typically occurs 6–8 months after a death, and is conducted by a case review team (CRT). The CRT reviews cases, identifies gaps in service systems and resources, and makes recommendations to the Community Action Team (CAT). FIMR data sources include birth and death certificates, medical records, maternal interviews, and sometimes service delivery records, such as WIC (Women, Infants, and Children). Information also may be obtained from family members. The number of reviewed cases varies by community size and number of fetal and infant deaths per year. FIMR teams typically review 3–5 cases monthly (Hutchins, Grason, & Handler, 2004; National Fetal and Infant Mortality Review Program (NFIMR), 2001).

The CRT prepares and submits a case (de-identified) summary report to the CAT. The CAT assesses the case for broader issues, translates issues into interventions, and reports to the community. The CAT also actively participates in the implementation of interventions designed to address systemic or service delivery issues identified during the review process (Hutchins, 2002; NFIMR, 2001; NFIMR, 2000).

Several studies—particularly the 2002 national study of FIMRs conducted by Johns Hopkins University—have contributed a great deal to our understanding of the role and contributions of FIMRs for the identification of causes of death (Handler, 2004; Hogue, 2004; Keleher & Arledge, 2011; Koontz, Buckley, & Ruderman, 2004; Strobino, Misra, & Grason, 2004). Recommendations from these studies primarily centered on the importance of a multidisciplinary, well-trained team and the cross-fertilization of strategies and information-sharing between FIMR teams and other review teams that serve the same geographical area.

Domestic Violence Fatality Review (DVFR)

The DVFR process was developed to address factors and circumstances related to a specific subset of fatalities. Originally, DVFRs were designed to review the death of a battered partner or spouse. The documented connection between domestic violence and child maltreatment and fatalities has led to some collaboration by those conducting these two types of reviews.

DVFR programs vary in their structure, and may be formal or informal. Availability of information may influence the level of analysis and quality of recommendations (Websdale, 2003). Cases are identified from police, medical examiner records, or media reporting of suicides, accidents, injuries, kidnappings, homicides, sexual assaults that end in death, and assaults or deaths of children, prostitutes, and homeless women (Wilson & Websdale, 2006). Most DVFR recommendations were related to increased multidisciplinary training and cooperation, particularly with:

- law enforcement (Websdale, 2003)
- the judicial system (Websdale, Town, & Johnson, 1999)
- child protective services (Smith et al., 2011)

- health care providers (Smith et al., 2011; Wilson & Websdale, 2006)
- other child fatalities review teams in the same geographic area (M. Durfee, Parra, & R. Alexander, 2009; Elster & Arcalde, 2003; Jaffe & Juodis, 2006; Smith et al., 2011)

3.2 IDENTIFICATION OF RISK FACTORS

The second step for all types of fatality review teams is the identification of risk factors associated with the individual deaths that they examine. As noted in Schnitzer and Covington (2010), at this point in the process, the team is focused on understanding and documenting all of the risk factors associated with the death and then identifying those that may minimize the risk.

Child Death Review (CDR)

Several authors indicated that many CDRs currently fall short in their understanding and assessment of risk factors related to the deaths they review. These authors then make the connection between this weakness and a CDR's capacity to make effective recommendations regarding prevention (R. Alexander, 2007b; Hochstadt, 2006; Schnitzer & Covington, 2010; Williams-Mbengue, 2004). Authors indicated that substance abuse and domestic violence should particularly be of concern when families are already involved in the child welfare system. Crosssystem training related to assessing family risk factors was strongly recommended (Douglas & Cunningham, 2008). Conversely, Douglas and Cunningham (2008) noted that recommendations regarding risk assessment may indicate a corollary concern regarding the overall capacities of the human services systems in the community.

Better coordination of risk factor analysis across fatality review teams was recommended by several authors (Covington, Rich, & Gardner, 2007; Hutchins, 2002; Smith et al., 2011). One author even suggested that if recommendations were not resulting in positive changes, the team should re-examine the risk factors being measured and what expertise may be needed to identify additional risk factors for consideration (S.P. Alexander, 2007). Several authors also identified the utilization of existing data across disciplines and programs as one strategy for assessing risk factors more accurately (S.P. Alexander, 2007; Covington, 2011; Williams-Mbengue, 2004).

Citizen Review Panel (CRP)

Most of the literature specifically regarding CRPs focused on their relationships with child welfare agencies. Only one author addressed the issue of the identification of risk factors by citizen review panels. However, many of the above observations, findings, and recommendations may be more generally applied.

Fetal Infant Mortality Review (FIMR)

The 2002 study of the FIMR process by Johns Hopkins University provided researchers, evaluators, and service providers with valuable data regarding the status of FIMR. However, the literature related to this study did not address identification of risks or trends in risks associated with reviewed cases. Several authors promoted close partnerships between FIMR and CDR teams, including joint work regarding the identification of risk factors (Hutchins, Grason, & Handler, 2004; Keleher & Arledge, 2011). The importance of qualitative data collected from interviews with parents, family, and providers, and the sharing of aggregate data across systems, also were recommended as a tool in identifying risk factors (Johnston, Bennet, Pilkey, Wirtz, & Quan, 2011; Koontz, Buckley, & Ruderman, 2004; Strobino et al., 2004).

Domestic Violence Fatality Review (DVFR)

The literature reviewed for this report regarding DVFR provided no real insight into the teams' current understanding and utilization of risk assessment. Training regarding best practices for members in domestic violence risk assessment and management, however, was recommended by several authors (Jaffe & Juodis, 2006; Watt, 2010; Websdale, Town, & Johnson, 1999; Williams-Mbengue, 2004).

3.3 IDENTIFICATION OF PREVENTION STRATEGIES

The identification of the causes of individual deaths, and the case-level and aggregate examination of risk factors related to those deaths, are extremely important tasks for fatality review teams. The long-term desired outcome for fatality review teams is the prevention of future deaths (Covington, 2011).

Child Death Review (CDR)

The literature suggests that CDRs are "doing a better job of assessing the problem than in proposing solutions" (Wirtz, Foster, & Leanrt, 2010). R. Alexander (2007b) noted that there is a general lack of scientific basis for the prevention recommendations of many CDR teams. Other authors observed that the most successful teams focus on specific populations, and then make sure that their recommendations reach the right audiences and decisionmakers (Covington, Rich, & Gardner, 2007; Douglas & Cunningham, 2008).

The authors offered recommendations for enhancing the identification of prevention strategies, including:

- train members on how to use data, prepare and disseminate recommendations, and use relevant evidence-based interventions (Johnston, Bennet, Pilkey, Wirtz, & Quan, 2011; Schnitzer & Covington, 2010; Wirtz, Foster, & Lenart, 2011)
- recruit members from the diverse cultures of the community, including local Indian tribes and military representatives (Bryan, Jones, & Lawson, 2010; M. Durfee, Parra, & R. Alexander, 2009; Elster & Alcalde, 2003)
- involve and support multiple agencies in data sharing and implementing recommendations, with a particular focus on the medical community (R. Alexander, 2007b; Christian & Sege, 2010; Keleher & Arledge 2011; Wirtz, Foster, & Lenart, 2011).
- identify a prevention champion or team advocate (S.P. Alexander, 2007)
- make recommendations clear and relevant, and use media opportunities to disseminate them (S.P. Alexander, 2007; Johnston, Bennet, Pilkey, Wirtz, & Quan, 2011; Wirtz, Foster, & Lenart, 2011)
- document who is accountable for implementation of recommendations and their progress (Alexander, R., 2007b; S.P. Alexander, 2007; Wirtz, Foster, & Lenart, 2011)

It was also suggested that if recommendations were not resulting in positive changes, the team should determine: (1) whether or not the intended outcomes can be measured; (2) how recommendations are communicated; (3) who should be communicating the recommendations; and (4) what partners are missing (S.P. Alexander, 2007).

Citizen Review Panel (CRP)

The seeming tension between many CRP and the child welfare agencies with whom they work, as discussed in several articles reviewed for this report, is most evident in the identification of prevention strategies. Some studies reported that the mutual mistrust created substantive barriers to shared prevention strategies (Bryan, Collins-Camargo, & Jones, 2011; Collins-Camargo, Jones, & Krusich, 2009; Jones, 2008). The lack of confidence by team members themselves also was observed to be a barrier (Bryan, Jones, Allen, & Collins-Camargo, 2007). Both of these challenges could be addressed by clear definitions of roles, better communication and planning, and training (Bryan, Jones, Allen, & Collins-Camargo, 2007; Jones, 2008).

Some authors indicated that future research should examine the effectiveness of different models for CRPs in facilitating systems change (Jones, 2003). Others called for more robust evaluations of the outcomes and effectiveness of fatality review processes, including clearly defined benchmarks and outcome measures (Sidebotham, Fox, Horwath, & Powell, 2011).

Fetal and Infant Mortality Review (FIMR)

The 2002 Johns Hopkins University national study of the FIMR process noted that most FIMR teams offer practice- or service-level prevention strategies, rather than addressing more systemic issues (Misra et al., 2004). One article also noted that deeper exploration is needed of the intermediary factors affecting the successful implementation of FIMR recommendations (Strobino, Misra, & Grason, 2004).

Qualitative methodologies were recommended for use in FIMR evaluation efforts at the process, service delivery, and systems levels, to better elucidate community benefits and to fine-tune FIMR models and methods (Grason, Silver, & State Title V Program Representatives, 2004; NFIMR, 2001). The creation of reliable and valid measures and data sets, and the improved documentation of outcomes, also were recommended (Johnson, Malnory, Nowak, & Kelber, 2011; Koontz, Buckley, & Ruderman, 2004).

The partnering of FIMR teams with CDR teams, CRPs, and local public health agencies was recommended by several authors as a way to promote more effective prevention strategies (Handler, 2004; Hogue, 2004; Hutchins, 2002; Hutchins, Grason, & Handler, 2004; Keleher & Arledge, 2011; NFIMR, 2000; Palusci, 2010; Strobino et al., 2004).

Domestic Violence Fatality Review (DVFR)

The literature provided little information regarding the current status of DVFR prevention strategies. The articles, however, were rich in recommendations for achieving more effective prevention strategies including:

- partnering with CDR teams for more effective prevention efforts (M. Durfee, Parra, & R. Alexander, 2009; Elster & Alcalde, 2003)
- engaging the judicial system in prevention strategy implementation (Websdale, Town, & Johnson, 1999)
- integrating domestic violence interdisciplinary research and best practices in developing prevention strategies (Wilson & Websdale, 2006)

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• applying "root cause analysis" to design prevention strategies, evaluate the extent and type of systems change achieved, and support the sharing of successes and challenges across DVFR teams (Watt, 2010)

3.4 COORDINATION AND COLLABORATION AMONG REVIEW TEAMS

A frequent and global recommendation throughout the literature for improving fatality review processes was to develop the ability and capacity of the different types of review teams to work together. It was suggested by several authors that coordinating activities and developing integrated processes may maximize efficiency and enhance the quality of team recommendations. However, there is little documentation of such shared efforts, or of information related to tangible, positive outcomes from collaborative approaches.

One form of collaboration that was addressed in some of the literature was shared membership across FIMR and CDR teams. For instance, in South Carolina teams share several common members, including a representative from the local health department (NFIMR, 2000). Efforts also have been made by some States to promote coordination of mortality reviews at the local level. For instance, Hutchins, Grason, and Handler (2004) noted that opportunities for collaboration among State- and local-level review teams and their members have already been taking place in States that received grants from the Maternal and Child Health Bureau (MCHB). Another concrete example comes from Michigan, where a model approach was developed by State and local CDR and FIMR teams, which allowed them to jointly review official documents and to identify and triage infant deaths with the most appropriate review process (Hutchins, Grason, & Handler, 2004).

The following recommendations were made by various authors regarding the coordination and collaboration among fatality review teams. Even though some of them were specific to types of review programs, they are applicable to all fatality reviews:

- promote membership overlap between CDR teams and other mortality review programs (Hutchins, Grason, & Handler, 2004; Jaffe & Juodis, 2006; NIFMR, 2000)
- hold regular joint meetings to discuss best practices, aggregate findings, shared recommendations, and implementation (Hutchins, Grason, & Handler, 2004)
- designate a coordinator or chairperson who would participate in the different mortality review processes to enhance communication and take shared recommendations to the community (Elster & Alcalde, 2003; Hutchins, Grason, & Handler, 2004; NFIMR, 2000)
- create fatality review databases that would store cases reviewed by more than one review committee (M. Durfee, D.T. Durfee, & West, 2002; Hutchins, Grason, & Handler, 2004; Johnston & Covington, 2011)
- issue joint reports that emphasize common issues and preventive strategies, and would support shared strategies (Hutchins, Grason, & Handler, 2004)

3.5 SUMMARY

The above processes and protocols are largely designed with the effective development and implementation of as their primary outcome. As might be expected, the literature overwhelmingly supported further research that documents and evaluates the current processes and protocols of all four types of fatality reviews. A review of the literature specifically related

to the creation, implementation, and presentation of team findings and recommendations follows in the next chapter.

SECTION 4. OUTPUTS OF FATALITY REVIEW TEAMS

This section provides an overview of the literature on the outputs of fatality review teams. Outputs include the development of recommendations, compiling and disseminating team findings and recommendations into a report for dissemination, and strategies for getting recommendations implemented.

4.1 DEVELOPMENT OF RECOMMENDATIONS

Following the review of a death or the analysis of many death incidents, the major task of a review team is to develop recommendations for improving agency systems and implementing prevention strategies. Most of the literature on the promising practices for developing recommendations is addressed in literature regarding child death review (CDR) teams; however, these promising practices can be applied to other types of fatality reviews.

Child Death Review (CDR)

It is the role of review teams to accurately and completely understand the circumstances and risk factors leading up to the types of deaths reviewed. Based on this understanding the teams are "to suggest likely points of leverage and to catalyze actions where interventions might be both feasible and efficacious" (Johnston & Covington, 2011). Team leadership is critical to facilitating an effective team structure and ensuring that the process of developing recommendations receives the attention it deserves (Wirtz, Foster, & Lenart, 2011). It is, however, recognized that writing effective recommendations may be difficult, as effective interventions are not always known.

Available analyses of CDR recommendations show varied quality. Recommendation shortcomings often include being overly broad, lacking specificity, not reflecting best or promising practices for addressing the identified issue(s), and often not clearly linking recommendations to specific review findings (Wirtz, Foster, & Lenart, 2011; Johnston, Bennet, Pilkey, Wirtz, & Quan, 2011; Schnitzer & Covington, 2010; S.P. Alexander, 2007). Guidelines for writing effective recommendations indicate that they should include the following (Wirtz, Foster, & Lenart, 2011; S.P. Alexander, 2007):

- an assessment of the problem that clearly defines the problem and includes local, State, and national data and known risk and protective factors
- information on best and promising practices for addressing the problems as well as the current efforts, resources, and capacity for addressing the problem
- the primary outcome from the prevention strategy that is sought
- an explicit link between the number of deaths and the recommendation(s) made coupled with the cost to society or the community if the recommendation is not implemented.
- identification of the agency, persons, or organizations responsible for implementing the recommendations
- a detailed plan of action that includes a timeframe for completion
- an identification of the person who has been assigned to follow up and track progress on the implementation of the recommendation

To formulate effective recommendations, teams must have an understanding of the multifaceted approaches to injury prevention. Liller (2001) states that, "The most successful interventions have been those that have addressed a combination of education, environmental improvements, engineering modifications, enactment and enforcement of legislation and regulations, economic incentives, community empowerment, and detailed program evaluation." Wirtz (2011) recommends using the Spectrum of Prevention framework developed by Larry Cohen of the Prevention Institute to guide the development of recommendations. This framework describes a range of levels at which prevention activities take place:

- strengthening individual knowledge and skills
- promoting community education
- educating providers
- changing organizational practices
- fostering coalitions and networks
- mobilizing neighborhoods and communities
- influencing policy and legislation

It also is important that teams are aware of best practices and have the skills to formulate effective recommendations. One study found that the provision of injury-prevention training and technical assistance, collaborative process improvement coaching, access to decisionmaking support resources and templates, and access to Web-based prevention resources could improve the quality of recommendations developed by review teams (Johnston, Bennet, Pilkey, Wirtz, & Quan, 2011). It is also suggested that recommendations should reflect a cost-benefit analysis, prioritization along the lines of which fatalities are most common, and analysis of which interventions are most effective, and feedback on the impact of such recommendations (S.P. Alexander, 2007).

Citizen Review Panel (CRP)

The focus of citizen review panel (CRP) recommendations related to fatalities are focused on changes in child welfare law, policy, and practice that could be factors in decreasing child deaths due to maltreatment (Palusci, 2010). The literature does not provide information on the current status of the development of recommendations by CRP teams. Promising practices for the development of effective recommendations also are not discussed.

Fetal and Infant Mortality Review (FIMR)

Fetal and infant mortality review (FIMR) teams make recommendations regarding individual cases of deaths. They also make recommendations for improvements to community-level programs, practices, and policies to address issues that are relevant to the community at-large (Hutchins, Grason, & Handler, 2004). In a study of FIMR recommendations, it was noted that the focus of most recommendations was program oriented or practice oriented. Very few recommendations are related to changes needed in policy (Misra et al., 2004). A few factors that may influence the development of recommendations were also noted. These include the availability of evidence-based prevention strategies, the ability of a community to implement a particular intervention, the current focus of local and national issues, and the availability of funding and information resources for implementing prevention strategies (Misra et al., 2004).

Promising practices for the development of effective recommendations for FIMR teams is not discussed in the literature.

Domestic Violence Fatality Review (DVFR)

In a study of domestic violence fatality review (DVFR) teams, Watt (2010) found that the process of making recommendations varies widely across teams: Some teams make recommendations tied to specific cases; others make recommendations aggregated across specific cases; other teams make nonspecific recommendations; while still others made recommendations using a combination of these approaches. Watt also found that there was disagreement among teams regarding how recommendations should be made. Some thought that recommendations should be case specific as a means of honoring the victim and maintaining the neutrality and credibility of the team. Other teams thought that recommendations should be aggregated to ensure that they represent common or systemic problems. Research about effective interventions that directly reduce domestic violence injury and death is limited (Wilson & Websdale, 2006).

4.2 REPORTING FINDINGS

Individual case reports are developed that include information on the victim, the circumstances leading to the death, and the team findings related to services and prevention. Most fatality review teams also compile and aggregate case findings in an annual report summarizing their findings and recommendations regarding required changes in practice, policy, and legislation. Finally, each of the fatality review types systematically collects data from reviews over time. This information is important for the identification of significant risk factors and trends in fatalities. This information also may be compared with vital records and other data sources to identify gaps in the reporting of deaths (Shanley, Risch, & Bonner, 2010). Fatality reviews are most effective when they are grounded in complete and accurate aggregate data about how many people die and the circumstances and risk factors that led to their death. If that information is lacking, the ability of fatality review teams to formulate effective recommendations for interventions is compromised (Schnitzer & Covington, 2010).

Child Death Review (CDR)

Most local and State CDR teams compile individual case reviews in aggregate State or community reports. These reports may be produced annually or biannually and are typically sent to the legislature, governor, and State agencies. They are also made available to the public on the National Center for the Review and Prevention of Child Deaths (NCRPCD) website (http://www.childdeathreview.org/) (Covington, Rich, & Gardner, 2007).

In 2010, it was reported that 42 States issued annual reports of their child fatality data and the findings and recommendations from their CDR teams. Twenty-three States also issue specialized reports from their findings related to specific types of deaths, e.g., maltreatment-related deaths, firearm deaths, and suicides (Covington, 2011).

Douglas and Cunningham (2008) made several recommendations for improving reporting by CDR teams after a review of published reports from 2000–2007. They found that due to a lack of consistency in reporting, it is difficult to gain an accurate picture of the aggregate number of

child deaths, their causes, and the recommendations for prevention. They recommended that reports:

- identify the maltreatment fatalities that occurred in their State and provide summary demographic information on the victims and perpetrators
- cover standardized periods of time, but not longer than 3 years
- document previously identified problems and how they have been addressed or remedied

Covington, Rich, and Gardner (2007) identified the components of a comprehensive report as including:

- executive summary
- summary of child data
- numbers and rates of all child fatalities
- findings by specific manner and causes of death
- key risk factors

The report also should include whatever actions were taken as a result of the reviews and all recommendations for parents and caregivers and national, State, and local leaders.

In addition to developing State reports, 40 of the 49 States with CDR programs use the Child Death Review Case Reporting System (CDR-CRS) developed by the NCRPCD and launched in 2005. The other nine States use State-based databases. Meersman and Schaberg (2010) emphasize that comprehensive review of child death data "can inform policy change and the development of prevention strategies." Additionally, data collected over time permits teams to develop recommendations targeted to specific populations such as Native Americans, Hispanic communities, and children with special health care needs (Quan, Pilkey, Gomez, & Bennett, 2011; Smith et al., 2011, Rimsza, Schackner, Bowen, & Marshall, 2002).

Despite the importance of gathering comprehensive data, a national system of surveillance of child deaths is not available. There are several challenges to gathering the complete, standardized data envisioned by researchers. First, data entered on reporting tools may not be complete (Covington, 2011; Quan, Pilkey, Gomez, & Bennett, 2011). Second, there are no common national definitions of such terms as child homicide, abuse, and neglect (Jenny & Isaac, 2006). Third, insufficient resources are committed to fatality review teams to permit them to gather and maintain comprehensive data (Quan, Pilkey, Gomez, & Bennett, 2011). However, in 2011 the Center for Disease Control received funding to create the National Violent Death Reporting System (NVDRS), which included child maltreatment deaths. Currently eighteen states participate in the registry (www.cdc/violenceprevention/NVDRS).

The literature recommends that both statewide and national data be collected consistently. Quan, Pilkey, Gomez, and Bennett (2011) recommend that additional data variables be added to the NCDR-CRS data set. Covington (2011) and Parks et al. (2011) indicate that teams need to be trained to interpret and use their data effectively. Smith et al. (2011) and Jenny and Isaac (2006) recommend the development of national common definitions of child maltreatment, child homicide, abuse, and neglect. Smith et al., (2011) also recommend that The Centers for Disease Control and Prevention provide national leadership and facilitate child maltreatment surveillance activities. Other recommendations include the development of guidelines for appropriate data

sharing among agencies (Webster & Schnitzer, 2007); that data be complete and accurate (Parks et al., 2011); that national leadership, consistent funding and technical support to CDR teams be provided for collection of data (Webster & Schnitzer, 2007); that officials who investigate deaths be trained about data to improve data quality (Parks et al., 2011); that teams that are unable to gather complete data develop a hierarchy of cases to be reviewed so they can collect complete data on all cases they review (Parks et al., 2011); that additional questions for review of suicide cases be added to a national dataset (Azrael, Hemenway, Miller, Barber, & Schackner (2004); and that aggregate data be made available to researchers (Azrael, Hemenway, Miller, Barber, & Schackner, 2004).

Citizen Review Panel (CRP)

Citizen review panels generate annual reports containing an activity summary along with recommended changes to child welfare practice and policy, to which the State child protective services agency is mandated to respond. The focus of citizen review panel recommendations is on child protective services systems, their contribution to child maltreatment fatalities, and the ability of child protective services to influence and improve the lives of children and prevent deaths in other parts of the child welfare system (Palusci, 2010). CRP teams are required to monitor the impact and implementation of the recommendations they produce as a result of their review process.

Fetal and Infant Mortality Review (FIMR)

The case review team (CRT), usually on an annual basis, develops and formally reports on its recommendations for implementing needed changes to the community action team (CAT). CRTs also may examine recommendations from the prior year to determine if trends exist or to assess whether previously identified issues are no longer being seen in current case reviews (NFIMR, 2008).

With respect to FIMR and aggregate data, NFIMR makes software and a voluntary data collection tool available to its members. Koontz, Buckley, and Ruderman (2004) described that when gains in reducing infant mortality began to lag in the 1980s, pressure on public health officials "to support States in building the necessary data and analytic capacity" increased. As a result, they focused on establishing a national system of linked birth-infant death records, improving the accuracy and uniformity of data collection and analysis, particularly for racial and ethnic data, and strengthening States' capacity to produce quality vital statistics data, including sub-State or small area data.

Domestic Violence Fatality Review (DVFR)

DVFR teams usually analyze the events leading up to a series of cases to determine what potential warning signs were present prior to the fatalities and whether anyone could have responded differently to prevent their occurrence (Websdale, Town, & Johnson, 1999). Many fatality review teams prepare reports that document the team's activities, summarize relevant facts of the cases reviewed, and make recommendations (Watt, 2010). Reports are typically distributed to the public, private, and government agencies and organizations, and to domestic violence coordinating councils. The findings also may be disseminated through publications and conference presentations. The goal of these reports is to generate "interprofessional discussions for change" (Wilson & Websdale, 2006). If through a review, fraud, negligence or violation of

professional ethics is discovered, the DVFR team will make a report to the appropriate authorities (Wilson & Websdale, 2006).

A majority of DVFR teams (69 percent) use a coding form to record and organize information. Most data is quantitative, although some teams report that they also used timelines and narratives to aid with the understanding of each case (Watt, 2010). Florida requires that the data collected by DVFR teams be consistent statewide (Websdale, 2003). Some teams participate in a pilot project collaborating with the National Violent Death Reporting System to collect domestic violence fatality data (Friday, 2006).

4.3 IMPLEMENTING RECOMMENDATIONS

Fatality review teams may not be responsible for implementing their proposed prevention strategies and systems changes at the practice and policy levels. The literature indicated that fatality review teams have a responsibility to ensure that a person or agency becomes responsible for implementation of the recommendations. It is also important that someone on the fatality review team is accountable for follow-up regarding the progress on the actions taken. This section provides a brief overview of the current strategies used by each of the fatality review teams for getting their recommendations implemented.

Child Death Review (CDR)

Assuring that recommendations lead to the implementation of strategies and actions resulting in systems change is a major challenge for CDR teams (S.P. Alexander, 2007). A number of barriers to moving from review to action have been identified. For example, teams do not make specific, action-oriented recommendations that can be translated into prevention or policy strategies. Team members also typically do not have the necessary time and resources to move from review to action given that most members participate on a volunteer basis. Lastly, some teams may not have the required expertise or resources to implement prevention strategies (Schnitzer & Covington, 2010).

The literature points to some evidence that CDR team member advocacy and educational outreach within their respective agencies/organizations and the public can be helpful in implementation efforts. This requires an understanding of social marketing and communication, building strategic partnerships, and sharing data and strategies among State CDRs. It also requires turning recommendations into messages that "stick" and selecting a messenger that has credibility or visibility with the target audience (S.P. Alexander, 2007).

Advocacy with elected officials and the media have also been identified as important. Key strategies in conducting such advocacy include: having clear strategies for engaging the intended audience, presenting a few germane facts, a synopsis or story, and providing a brief proposal for addressing the identified issues. The literature also highlights the importance of working proactively with the media and developing strategies for published or airing balanced accounts about how and why children die in the community and how these tragedies can be prevented. CDR preparation in responding to the media inquires is also recommended. Overall, evaluating the process to determine whether specific strategies are resulting in the desired outcomes is critical. Evidence that a strategy is accomplishing the desired outcome has been identified as

foundational in obtaining increased support to move forward on other prevention efforts (S.P. Alexander, 2007).

Citizen Review Panel (CRP)

CRP recommendations are Federally required to be reported to, and answered by, the State child welfare agency. To date, research is limited on the current strategies and promising practices used by CRP teams for ensuring the implementation of their recommendations. There are suggestions, however, for building the necessary foundations for CRP teams and child welfare agencies to work better together. These include conducting a series of activities to strengthen trust and build good will between them and educating citizen participants on the policies, procedures, goals, and daily challenges of the child welfare agency (Collins-Carmago, Jones, & Krusich, 2009).

In response to a survey, many child welfare agency personnel indicated that they view the role of CRP teams as providing objective viewpoints and necessary critique of agency practices and policies. They indicated that they do not believe that is it the role of the CRP teams to determine what system changes need to be made or to ensure their implementation (Bryan, Jones, Allen, & Collins-Camargo, 2007). Further, it was suggested that systemic issues should be assessed more broadly and include other agencies and systems that impact work with families and children including family courts, public health, and community-based agencies (Bryan, Jones, Allen, & Collins-Camargo, 2007). Lastly, action plans, timelines, and updates should be provided to CRP teams in response to the recommendations. Memoranda of understanding (MOU) also could be jointly developed regarding the next steps for implementing agreed upon recommendations.

It is suggested that the CRP process is complementary to FIMR and CDR teams. CRP teams focus solely on addressing specific issues that need to be addressed by the child welfare system. Prevention strategies identified by FIMR and CDR to be implemented in systems outside of the child welfare may be critical to the efforts of child welfare in improving their system. The outcomes that child welfare systems can achieve are often interrelated to the supports, services, and policies of other social services agencies (e.g., mental health, domestic violence). Therefore, it is critical that CDR and CRP teams work together if they are not part of the same administrative structure (Palusci, 2010).

Fetal and Infant Mortality Review (FIMR)

The FIMR process is different from the other fatality reviews in that it has a community action team (CAT), which is tasked with prioritizing and implementing the recommendations from the CRT. CATs seek to include consumers and well-connected or influential members of a community, such as politicians, who can facilitate the implementation of recommendations (Hutchins, Grason, & Handler, 2004).

Misra et al. (2004) conducted a study of FIMR teams with different structures. In examining the impact of having a separate CAT with the responsibility of implementing recommendations, it was concluded that this approach "appears" to enhance the effectiveness of FIMRs. Those with CATs implemented a higher mean percentage of reported recommendations than FIMR teams with a combined CRT and CAT or a CRT only. The two-tiered FIMR teams also implemented more activities in all five of the essential maternal and child health services examined:

- data assessment and analysis
- community partnerships and mobilization
- quality assurance and improvement
- policy development
- informing and educating the public

It is also important that CATs be aware of, and collaborate with, local perinatal initiatives. These may include prenatal and perinatal regional consortiums, consortiums of Federal Healthy Start projects, or mayoral or county blue ribbon panels on infant mortality (NFIMR, 2008).

Overall, a FIMR team's capacity to act is dependent upon the ongoing commitment of the volunteers that serve on the team. Time must be dedicated to identifying, celebrating, and communicating program accomplishments to sustain team members and assure broad-based, local support for the FIMR team (NFIMR, 2001). Additionally, FIMR CATs must address a wide range of community actions, view improving services and resources as a long-term process, and continually assess the status of proposed actions to ensure their implementation, and obtain community feedback about the changes that have occurred (NFIMR, 2001).

Domestic Violence Fatality Review (DVFR)

The literature does not address the strategies used, or the best practices for, implementing recommendations by DVFR teams. Watt (2008) briefly mentions implementation of recommendations and states that DVFR team members are, "...often responsible for implementing and evaluating changes to services delivery in their respective agencies...." based on the recommendations they develop. Watt (2010) lists the barriers to implementing recommendations identified in a study of the Washington DVFR team conducted in 2004. These include lack of resources, resistance to change, competing demands, and lack of expertise. Watt, however, does acknowledge that very little research and evaluation has been conducted regarding DVFRs as they are still the early stages of development.

4.4 SUMMARY

Regardless of the type of fatality review team, the development of effective recommendations that can be implemented is a critical step in the process. Recommendations must include a definition of the problem and identify best or promising practices for addressing the problem. In addition, they should demonstrate knowledge of the context in which they will be implemented (existing efforts, resources, political will). Person(s) or organization(s) responsible for implementing the recommendations and for tracking the progress of implementation must also be included (Covington, Foster, & Rich (Eds.), 2005).

Annual reports and aggregate databases are an important basis of information for teams as they develop recommendations. All the fatality review types develop and disseminate annual reports. CDR is the most developed with respect to a nationwide database, but there are improvements the CDR program should make. The other fatality review types are not as developed with respect to aggregate databases.

The literature underscores the importance of using data over time to inform the work of each type of fatality review as each works to prevent fatalities. One article recommends the

development of State databases that are common to all fatality reviews (Hutchins, Grason, & Handler, 2004). These databases could identify cases reviewed by more than one review team. They may also provide a better understanding of the types of recommendations generated by the different review teams and help identify possible overlap and opportunities for collaboration with implementing prevention strategies.

What is necessary for fatality review team recommendations to be translated into actions to prevent future injuries and deaths? "Advocacy for effective prevention begins in the [CDR] process itself and extends to the kinds of recommendations that are made and whether these recommendations are heard and supported by people capable of making needed changes" (S.P. Alexander, 2007). Members of fatality review teams have a critical role in ensuring that the knowledge they gain from reviews is translated into effective prevention strategies (Wirtz, Foster, & Lenart, 2011). Finally, coordination of CDR teams with CRP, FIMR, and DVFR teams would also assist in the translation of recommendations into action. This is based on the fact that they all have the same overall purpose of decreasing preventable deaths. In addition, family violence is a "causal link" between the various types of reviews (Elster & Alcalde, 2010). Lastly, it has been suggested that the CDR process might consider adopting the FIMR model of CAT. This would provide a formal structure for assisting in the implementation of recommended changes (Hutchins, Grason, & Handler, 2004).

SECTION 5. OUTCOMES OF FATALITY REVIEW TEAMS

The formal and informal recommendations made by fatality review teams of all types propose prevention strategies, education campaigns, changes in agency procedures or policies, interagency collaboration, and the development or enforcement of laws and regulations for preventing future deaths. Many of these recommendations have been implemented.

5.1 OUTCOMES BY REVIEW TYPE

Examples of the outcomes are discussed by the fatality review type in the sections below.

Child Death Review (CDR)

The literature reveals that 68 percent of child death review (CDR) teams report that State agencies and legislatures have acted on CDR team recommendations (Peddle, Wang, Díaz, & Reid, 2002). The following are examples of changes resulting from CDR team recommendations that were implemented.

- Policy and procedural changes
 - improved multiagency work and communication, more effective identification of suspicious cases and a decrease in inadequate death certification (M. Durfee, D.T. Durfee, & West, 2002)
 - o improved death investigations and improved identification and diagnosis of maltreatment deaths (Covington, 2010)
 - o adoption by an Office of the State Medical Examiner of improved death scene investigation and scene re-enactments to gain more knowledge about Sudden Unexpected Infant Death (Meersman & Schaberg, 2010)
 - enactment of improved child restraint laws and pool fencing laws (S.P. Alexander, 2007; Rimsza, Schackner, Bowen, & Marshall, 2002; Christian & Sege, 2010; Elster & Alcalde, 2003)
 - o collaboration of a CDR team with a State's Building Code Council to regulate, educate, and enforce housing code compliance and coordination functions to reduce drowning (Quan, Pilkey, & Gomez, 2011)
 - o legislation passed to establish a graduated driver's license program for teens. (S.P. Alexander, 2007; ASTHO, 2004; Rimsza, Schackner, Bowen, & Marshall, 2002).
 - o Widespread changes instituted in Nevada to its child welfare system, including additional funding, training, policy (Christian & Sege, 2010; Covington, 2010).
 - o reduced deaths associated with child welfare agency system problems (Covington, 2010)
 - o passage of 'safe haven' laws permitting a parent to give up an infant without legal consequences at an identified safe place (Hutchins, 2002)
 - o passage by a legislature of a car safety program to reduce motor vehicle deaths (ASTHO, 2004)

- Prevention strategies enacted
 - o use of data compiled from child fatality reviews to underscore the need for enforcing existing laws (ASTHO, 2004; Christian & Sege, 2010)
 - o child death review data about Sudden Unexpected Infant Death was used to inform prevention activities (Brixey, Kopp, Schlotthauer, Collier, & Corden, 2010)
 - o child death review data used to design injury prevention interventions and programs (Keleher & Arledge, 2011).
 - o risk manager position added to a State parks agency (Quan, Pilkey, & Gomez, 2011)
 - o use of data by a CDR team to highlight drowning deaths in bodies of water where lifeguards had been cut for budgetary reasons, and to highlight the disparity in availability of lifeguards among ethnic/racial groups (Quan, Pilkey, & Gomez, 2011)
 - work with law enforcement to improve documentation of restraints in fatal motor vehicle crashes and of sleep position in Sudden Unexpected Infant Death (Christian & Sege, 2010)
 - o public education campaigns to increase parent awareness of dangers of drowning in irrigation canals, dangers of bed sharing, child safety restraint laws, and an antidrowning campaign targeting a specific at-risk group (Quan et al., 2011; Rimsza et al., 2002)
 - o closing a body of water to swimming (Quan, Pilkey, & Gomez, 2011).
 - o public education campaign about safe partying and safe driving after two teenagers died when hit by a drunk teen driver (Hutchins, 2002)
 - o public education prompted by CDR teams to reduce toddler drowning in buckets; promote use of child proof medicine containers, especially for iron pills; promote fencing to reduce child drowning in pools; promote use of home smoke detectors; traffic safety campaigns; and education of mothers about the potential danger of paramours to their children (Hochstadt, 2006)

Citizen Review Panel (CRP)

Citizen review panel fatality review (CRPs) teams are charged by Federal legislation with making recommendations to the relevant State agencies for actions that could reduce child maltreatment. Palusci, Yager, & Covington (2010) examined changes to policy, law, and protocol that were a result of CRP activities in one jurisdiction and found that the changes reduced child maltreatment deaths. The implemented changes included:

- statewide training for physicians
- new protocols for family assessment by foster care agencies
- new State protocols to determine the cause and manner of all deaths
- increased attention to screening out complaints, time lapse between assignment and contact with families, inaccurate risk assessment completion, and ability of the CPS worker to assess the totality of the case

Fetal and Infant Mortality Review (FIMR)

An extensive evaluation of fetal and infant mortality review (FIMR) in 2002 found that, "because the FIMR process extends beyond problem identification to promote problem solutions, observable changes in practice and programs occur, "things get fixed" and participants are inspired to take further action" (Johnson Malnory, Nowak, & Kelber, 2011). The following examples were given:

• "Interagency communication has resulted in strengthened communication about Safe Sleep and discussions about how to deliver consistent messages" (Johnson, Malnory, Nowak, & Kelber, 2011).

• Disease prevention and treatment

- O Women with chronic illnesses such as hypertension and diabetes or multiple pregnancies, or who had experienced previous perinatal deaths, were encouraged and empowered to seek prenatal care as soon as they identified that they were pregnant (Johnson, Malnory, Nowak, & Kelber, 2011).
- o Women diagnosed with sexually transmitted infections were treated and the treatment was completed (Johnson, Malnory, Nowak, & Kelber, 2011).

• Services provision increase

- o The presence of a FIMR was related to greater performance in six areas of essential maternal and child health services (Strobino et al., 2004).
- o Support for increased funding to support Women, Infants, and Children (WIC) peer breastfeeding services (Johnson, Malnory, Nowak, & Kelber, 2011).

• Public health program success

- o Public health departments with a FIMR program are two-to-three times more likely to undertake certain activities that prevent fetal and infant death (Hutchins, 2002).
- o Work with the medical examiner's office and the Maternal Child Family Health Alliance on Safe Infant Sleeping Programs (Hutchins, 2002).
- o The local health departments were more likely to undertake activities to advance education of health care providers for pregnant women and infants, to meet local perinatal health goals for pregnant women, and to work with the local ACOG chapter in communities with FIMRs (Strobino et al., 2004).

Domestic Violence Fatality Review (DVFR)

DVFR teams also make recommendations to improve systems and prevent future deaths. Recommendations are made to improve systems gaps and services, educate the public, and work toward better prosecution of offenders (Wilson & Websdale, 2006). Examples of changes accomplished by DVFR teams include:

- Policy and procedural changes
 - o established a centralized, countywide reporting system for domestic violence maintained by the Sheriff's office (Wilson & Websdale, 2006)
 - developed a protocol to have law enforcement report all child witnesses of domestic violence fatalities to the State's Department of Human Services Central Intake (Wilson & Websdale, 2006)

- o toughened required compliance with Department of Correction regulations for batterer treatment. (Wilson & Websdale, 2006)
- o changed law enforcement policies related to weapons removal from homes where there is domestic violence, resulting in improvements to practice (Watt, 2010)
- o worked for better coordination between courts and crisis centers (Watt, 2010)

Prevention changes

- o Worked to update mental health practitioners' treatment of batterers (Wilson & Websdale, 2006).
- o Made efforts to improve recognition by mental health professional of symptoms that could signal potential homicide (Wilson & Websdale, 2006).
- o Disseminated DVFR reports widely to community stakeholders and generated media attention through press releases (Watt, 2010).

5.2 **SUMMARY**

While the literature provides numerous examples of changes catalyzed by fatality review teams, it is an incomplete catalogue of the impact of fatality review teams. The bulk of the literature examines other issues besides the specific changes brought about by fatality reviews. The Review of State and Local Fatality Review Team Reports: Recommendations and Achievements, report developed for this study, provides additional information about recommendations and accomplishments of the different types of fatality review teams that were studies as part of the project.

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SECTION 6. IMPACT OF FATALITY REVIEW TEAMS

The goal of conducting fatality reviews is to better understand how and why people die in order to prevent future deaths and to reduce the number of fatalities. This section discusses the overall impact of conducting fatality reviews.

6.1 IMPACT BY REVIEW TYPE

There is little research that has attempted to answer the question of whether fatality reviews lead to a reduction in deaths, but the topic has been discussed with respect to each of the four types of reviews.

Child Death Review (CDR)

Covington and Johnston (2011) suggest that the measure of the impact of Child Death Review (CDR) is whether fewer children die. However, there has been no evaluation of whether CDR results in a reduction of child deaths (Shanley, Risch, & Bonner, 2010; Covington & Johnston, 2011; Webster & Schnitzer, 2007, S.P. Alexander, 2007). It has been suggested that there is a need for a national evaluation of CDR teams to measure the outcomes of these teams (Covington & Johnston, 2011). Webster and Schnitzer (2007) point out that the variability among CDR teams makes evaluation difficult. However, some specific aspects of State CDR programs have been evaluated and recommendations developed. Recommendations have been made for improving the quality of recommendations developed by CDR teams and key components for of comprehensive reports (Johnston, Bennett, Pilkey, Wirtz, & Quan, 2011).

Citizen Review Panel (CRP)

Palusci (2010) said of citizen review panels that, "It is difficult to measure...the effectiveness of citizen review panel fatality reviews (CRPs) in reducing those deaths given the small numbers of deaths in any one jurisdiction and the difficulty in constructing an experimental model with a control group to measure improvements in statistically sound way." He notes further that any reduction in the numbers of deaths may be attributable to many factors, not just the work of review panels.

However, Palusci, Yager, and Covington (2010) specifically sought to evaluate whether the number of deaths in a specific jurisdiction were reduced during 6 years of review due to changes to law, policy, and practice in the State child welfare system that were implemented as a result of CRP recommendations. They wanted to see if CRP recommendations for systems change could be linked with fewer child deaths. The researchers concluded that the child welfare agency addressed a number of specific problem areas identified by the CRP in its recommendations, and that there was a reduction in child deaths associated with those particular problem areas.

Numerous studies conducted by the National Citizens Review Panels Virtual Community with other academics asked CRP members and child welfare agency staff whether they believe citizen review panels are effective and what factors influenced their effectiveness (Jones, Litzelfelner, & Ford, 2003; Jones, 2003; Jones, 2004; Bryan, Jones, Allen, & Collins-Camargo, 2007; Jones, 2008; Jones & Royse, 2008; Collins-Camargo, Jones, & Krusich, 2009; Bryan, Collins-Camargo, & Jones, 2011; Bryan, Jones, & Lawson, 2010). While these studies identified a number of

factors that those surveyed believe hinder or enhance effectiveness, none of the studies examined the actual impact of CRP teams. Only perceptions of the effectiveness of citizen review panels, in general, are provided. Palusci (2010) found that CRPs have the potential to make improvements to child welfare and recommended CRPs work more closely with CDRs. He also recommended further evaluation of the impact of CRPs.

Fetal and Infant Mortality Review (FIMR)

Fetal and infant mortality review (FIMR) was evaluated by Johns Hopkins University researchers in 2002 (Grason, Silver, & State Title V Program Representatives, 2004; Strobino et al., 2004; Misra et al., 2004; Koontz, Buckley, & Ruderman, 2004; McDonnell, Strobino, Baldwin, Grason, & Misra, 2004; Strobino, Misra, & Grason, 2004; Handler, 2004; Hutchins, Grason, & Handler, 2004). The researchers chose not to include infant/fetal mortality rates as a measure for evaluation because, "FIMR is one of a variety of approaches to fetal and infant mortality reduction. Researchers noted that because "FIMR has become integrated into State and local maternal and child health systems, increased attention has been paid to the ways in which FIMR activities contribute to the implementation of core function by public health agencies" (Koontz, Buckley, & Ruderman, 2004).

FIMR has been evaluated as one component of a broader public health system dedicated to maternal and child health; examining whether it resulted in the provision of essential maternal and child health services and examining the development and implementation of recommendations (Misra et al., 2004; McDonnell et al., 2004; Strobino, Misra, & Grason, 2004). Other researchers also have evaluated such specific FIMR aspects as membership, reporting, effective recommendations, evaluation, training, obtaining sufficient information, leadership, collaboration with other agencies, and outcomes (NFIMR, 2001).

Domestic Violence Fatality Reviews (DVFR)

Wilson and Websdale (2006), in a study of domestic violence fatality review (DVFR) teams, asked, "How do we measure if DVFRs actually reduce domestic violence deaths?" The authors indicated that one measure is the decline in the number and rate of domestic violence deaths. The authors, however, acknowledged that "it would be difficult to attribute these declines to the onset of the DVFR teams because of the numerous demographic variables that affect homicide rates such as divorce and marriage rates, education, and socioeconomic status."

Watt (2010) studied DVFR teams and pointed out how little research there is on the collaborative efforts of DVFRs. Only one study has evaluated the impact of DVFR recommendations in a State and found that very few communities successfully implemented recommendations of their DVFR teams.

The most thorough examination of the possibilities for future evaluation of fatality reviews has been done by Watt (2010). Given the difficulty of evaluating against the standard of reduced deaths, Watt suggests other possibilities for evaluation: whether the teams' goals match their systems change efforts; whether they achieve the outcomes sought through their recommendations; whether they gain a better understanding of risk factors for intimate partner fatality, systems changes and fostering collaboration; and what characteristics and factors lead to successful and not successful teams. Watt does, however, believe that future research could

explore the "ultimate question" of whether DVFR teams bring about reduction of domestic violence fatalities (Watt, 2010).

6.2 SUMMARY

The goal of each of the fatality review models is to reduce fatalities. However, the literature shows it is difficult to determine with certainty whether they achieve that goal, and very few researchers make the attempt. Only one study of CRPs made the attempt and found that policy and practice recommendations of a CRP team were implemented and that there were fewer deaths as a result.

The difficulty of evaluating changes to and by service systems is not limited to fatality reviews. Numerous social science researchers have examined the question of how to evaluate the work of collaborative bodies attempting system change and have determined that such analysis is difficult for many reasons. The difficult is due to the fact that the work of collaborative bodies is so complex and influenced by so many external influences and activities that it is difficult to isolate specific causes of accomplishments or lack of accomplishments (Watt, 2010). Given the difficulty of examining the question of reduced deaths, research suggests that it might be more fruitful to measure the impact of fatality review efforts by measuring a number of other factors. Future research could attempt to evaluate these questions and thereby determine whether fatality review teams have an impact on the systems they seek to influence.

APPENDIX A. BIBLIOGRAPHY

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