Development of Maryland Local Overdose Fatality Review Teams: A Localized, Interdisciplinary Approach to Combat the Growing Problem of Drug Overdose Deaths

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The Maryland Local Overdose Fatality Review Teams (LOFRTs) are multiagency, multidisciplinary teams that critically analyze individual cases of drug overdose in their jurisdictions to identify preventable risk factors and missed opportunities for intervention, and to make policy and programmatic recommendations to prevent future overdose deaths. Three Maryland LOFRTs were first piloted in early 2014, and became established in law in May of the same year. LOFRTs provide unique opportunities for enhanced interagency collaboration and locally driven prevention efforts. This study describes the process of establishing LOFRTs in Maryland. The experiences and information regarding LOFRTs may help counties in other states combat the growing problem of deaths by drug overdose.

Keywords: *access to health care; community intervention; health promotion; unintentional injury; injury prevention; safety; partnerships; coalitions; public health laws; public health policies; strategic planning; substance abuse*

INTRODUCTION

Since 2010, the total number of drug overdose deaths in Maryland has steadily risen, with a total of 858 deaths in 2013 (Figure 1; Maryland Department of Health and Mental Hygiene [DHMH], 2013b). This exceeds the number of homicides (420), suicides (559), and motor vehicle accidents (509) that same year (DHMH, 2013c). Maryland's challenge reflects the national struggle with overdose, which in 2008 became the leading cause of preventable injury death in the United States (DHMH, 2013b). Many states have responded to the rapid increase in drug overdose deaths by increasing the distribution of naloxone, a reversal agent for opioid overdose; treating patients suffering with addiction with highly effective therapies; and launching take-back programs for unused prescription opioids (Beletsky, Rich, & Walley, 2012; Centers for Disease Control and Prevention, 2012; Compton, Volkow, Throckmorton, & Lurie, 2013; Siegler, Tuazon,

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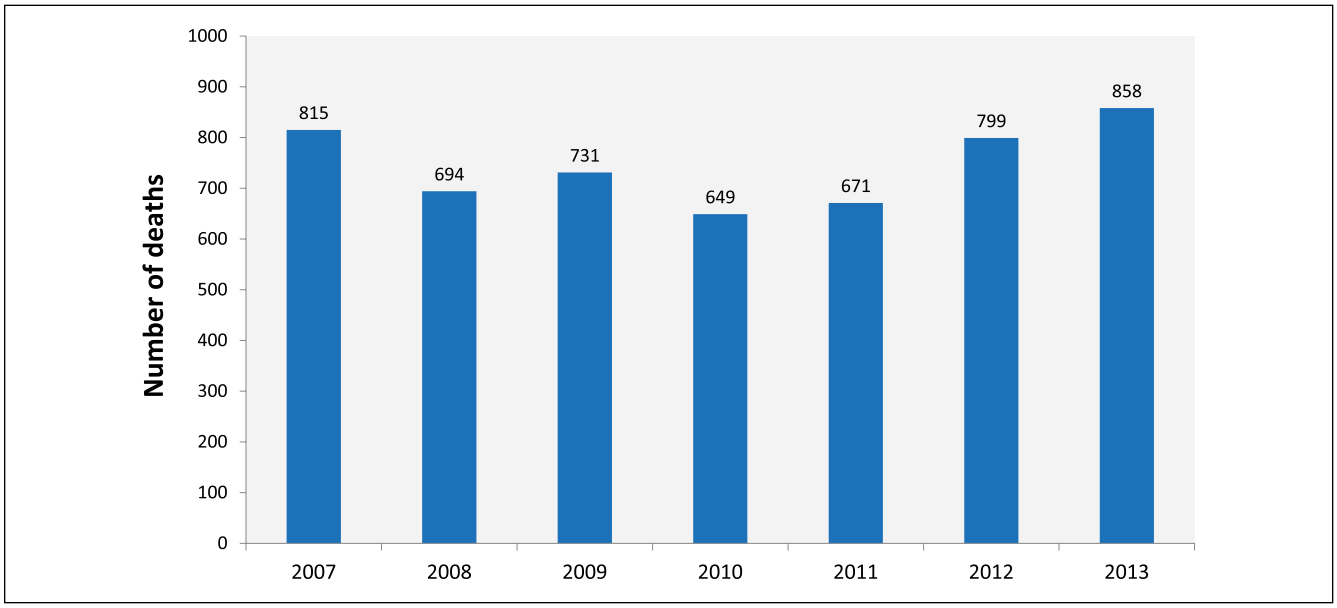

FIGURE 1 Total Deaths due to Intoxication in Maryland Between 2007 and 2013

Bradley O'Brien, & Paone, 2014). Maryland's response to the rapid rise in overdose included all these actions, as well as enhanced data analysis and interagency cooperation, mandated by an executive order by Governor Martin O'Malley, that established an interagency overdose prevention task force.

To encourage and inform local efforts to address overdose, Maryland created Local Overdose Fatality Review Teams, known as LOFRTs. The concept of fatality reviews is based on child fatality review teams, which began in 1978 in Los Angeles (Durfee, Parra, & Alexander, 2009). The key qualities of child fatality reviews include multidisciplinary participation, generally including enforcement, health, public health, child protective services, and the medical examiner's office; an assessment of whether fatalities could have been prevented; and the development of policy and programmatic recommendations to prevent future deaths. One state's review found that 38% of child fatalities could reasonably have been prevented (Rimsza, Schackner, Bowen, & Marshall, 2002). Child fatality review teams have sparked many proactive policy changes (Douglas & McCarthy, 2011), including child restraint laws in Georgia, changes to the child welfare system in Nevada, and campaigns on safe sleeping in Massachusetts. The use of fatality reviews is endorsed as a best practice by the American Academy of Pediatrics (2010), which stated that fatality review is a "powerful tool in understanding the epidemiology and preventability of child death locally, regionally, and nationally; improving accuracy of vital statistics data; and identifying public health and legislative strategies to reduce preventable child fatalities" (p. 592).

Based on this model, Maryland's LOFRTs were created to critically analyze individual cases of fatal opioid overdose. As with child fatality reviews, Maryland brought together a diverse set of agencies and experts to assess unidentified risk factors and missed opportunities for intervention and to inform policy and programming changes to help prevent future overdoses. Like many child deaths, overdose deaths can be prevented. This is the first instance of this model applied to overdose fatalities. This article describes the process of establishing LOFRTs in Maryland, including a case study from Cecil County, Maryland.

METHOD

Initial Steps

In 2013, Maryland was selected as one of six states to receive the Department of Justice's Harold Rogers Grant to fund data-driven multidisciplinary approaches to reduce prescription drug abuse. One of these approaches was the LORFT program.

Maryland chose three jurisdictions to pilot the local overdose response teams: Baltimore City, Cecil County, and Wicomico County. They began meeting in February of 2014. The DHMH provides cases to review that are pulled from The Office of the Chief Medical Examiner database using the office's methodology for identifying overdose deaths. The initial legal framework for overdose fatality review came from designating them as medical review committees. Under Maryland law, medical review committees are appointed by or established in a local health

department for review purposes (Morbidity, Mortality, and Quality Review Committee, 2008). Key elements of a medical review committee include the following:

1. The purpose of the committee is to evaluate and improve the quality of health care.
2. Proceedings, records, and individually-identifiable data are confidential.
3. The process is protected from discovery, use as evidence in any civil action, or subpoena.
4. There is immunity from civil liability for members of the review committees for giving information to, participating in, or contributing to the function of the medical review committee.

Establishment in Law

During the 2014 session of the Maryland General Assembly, the DHMH supported legislation to develop a broader framework for the local overdose review team approach. Existing law for review of child fatalities was used as a model. The new law, House Bill 1282, included guidelines for team membership, protocols for data disclosure and review, and confidentiality provisions. This legislation was passed by the Maryland General Assembly and signed by Governor O'Malley on May 15, 2014. Key additional elements of this legislation included the following:

1. *Specific goals:* The LOFRT's main objectives are to conduct multidisciplinary, multiagency reviews of all the available information about a decedent, to improve interagency collaboration and coordination, to identify risk factors for overdose deaths, and to advise local and state health departments on changes to law, policy, and practice in order to prevent future deaths.
2. *Team structure:* Teams may be made up of any of the following available members: county health officer; director of local department of social services; state's attorney; school superintendent; state, county, or municipal law enforcement officer; director of behavioral health services in the county; emergency medical services provider; hospital representative; health care professional who specializes in prevention, diagnosis, and treatment of substance use disorders; representative of local jail or detention center; representative from parole, probation, and community corrections; secretary of juvenile services; member of the public with interest or expertise in the prevention and treatment of drug overdose deaths, appointed by the county health officer; and any other individual necessary for the work of the local team
3. *Flexibility:* Jurisdictions also have the option of combining resources and teaming up with each other to form multicounty review teams. This type of team requires a memorandum of understanding for data sharing.
4. *Legal authority:* House Bill 1282 greatly expanded the capability of the teams, as it allows for the establishment of LOFRTs in *any* jurisdiction in Maryland. It also allows the teams to request information about decedents from health professionals, law enforcements, and others and *compels* those agencies to provide the requested information.
5. *Roles and authority of team coordinator and team chair:* Team authority and leadership are held by the team chair. Duties of the chair include facilitating meetings, requesting relevant information from nonmembers, and appointing new members to the team. Duties of the coordinator include preparing for meetings by sending case information and data to team members, collecting confidentiality agreements, maintaining notes from the meeting, and reporting to the DHMH.

Meeting Protocol

LOFRT meetings begin with a review of the following information for each decedent: name, date of birth, age, gender, location of overdose, date of overdose, drugs involved in death, and history of substance use disorder treatment. Each LOFRT member contributes information to the discussion based on queries of agency databases. At the meeting, team members discuss the completeness of the investigation, any services that should be provided to the family or other community members, preventable risk factors for death, and systematic changes that can be implemented to prevent future deaths.

LOFRT meetings may also be open to the general public, for the portion of the meeting during which individually identifiable data are not discussed.

Monitoring and Reports. At the State's request, the following information is recorded by each team: specifics of each case discussed, including any identified trends or notable pieces of information; steps taken to improve coordination of services and investigations; steps taken to implement changes recommended by the local team within member agencies; and recommendations on needed changes to state and local laws, policies, or practices. For each case reviewed, team coordinators record the members that participated in the meeting, summaries of information shared, and the trends or key points observed. This is reported to DHMH and maintained in a database. At DHMH, this database, along with formal recommendations from the teams, is systematically reviewed for opportunities for the State to support local overdose prevention efforts and to implement recommendations with partner agencies at

the state level. DHMH also provides technical assistance to teams by attending the LOFRT meetings and facilitating bimonthly conference calls for team coordinators and chairs.

Recommendation Development. Following case reviews, the LOFRTs consider the deaths in the context of other aggregate, publicly available data sources, to identify overall trends in the data and inform potential recommendations. Recommendations may target participating agency protocols, inform strategic planning of the local health department, and also identify significant policy changes. Team members achieve consensus around priority issues they see likely to have an impact, and these recommendations are communicated to community stakeholders and to DHMH. With the authority of the team behind them, recommendations carry the weight necessary to bring about an agency-, system-, or policy-level change.

CASE STUDY: CECIL COUNTY

In February 2014, Cecil County formed one of the three pilot medical review teams in Maryland to better understand drug overdose deaths in their jurisdiction. The county is primarily rural, located in the northeast corner of Maryland. It is bordered on the north and east by Pennsylvania and Delaware and is bisected by major interstate highway I-95, likely contributing to high rates of cross-border drug trafficking and an overdose rate seemingly out of proportion for a county with relatively small population (2013 population estimate of 101,913, or 1.7% of Maryland's total population; U.S. Census Bureau, 2014).

From 2007 to 2012, the overdose death rate for Cecil County residents was 23.6 per 100,000 people, ranking second-highest behind Baltimore City (27.6 per 100,000; DHMH, 2013a). There is great concern about the reemergence of a thriving heroin trade and increases in violent crime in the area, following administrative and criminal actions against Maryland and Delaware physicians engaging in illegitimate opioid prescribing practices.

Cecil County's team, now formalized as a LOFRT, is composed of 26 professionals, representing 19 agencies/organizations in Cecil County, from government and substance abuse treatment providers, to education facilities and a local hospital. Between February and October 2014, Cecil County's LOFRT reviewed 25 overdose cases occurring from July 2013 to April 2014. Decedents were 76% male (19/25) and 24% female (6/25), with an average age of 43.5 years, median age of 46 years, and age range of 23 to 75 years. The case review process of one such decedent (discussed as John Doe) began with a basic review of available data surrounding the overdose, including his name, gender, date of birth, history of substance abuse treatment, and details of the scene investigation.

The Health Department's Alcohol and Drug Recovery Center then provided urine toxicology testing results. The Department of Social Services provided information on two prior neglect investigations, and discussed the results. They also shared information relating to Mr. Doe's prescribed medications, level of cooperation with the Department of Social Services, and failed attempts to coordinate treatment. The local mental health agency reviewed information about Mr. Doe's insurance authorizations and psychiatric treatment history. Finally, the Cecil County Sheriff's Office and law enforcement provided Mr. Doe's legal history, including drug- and alcohol-related police contact.

By sharing this information, the team concluded that while the decedent interacted with several different county systems, he most consistently engaged with the primary care physician. Multiple urine toxicology tests significant for opioids could have warranted additional outreach efforts, especially by the Health Department's peer recovery advocates at the primary care office. As Mr. Doe was residing at home at the time of overdose death, the team also noted that his close friends and family could have benefited from overdose response training and access to prescribed naloxone. They also noted that the decedent had received multiple medications from multiple physicians that, in combination, increased his risk of overdose. This provided support for the consideration of mandatory use of the Prescription Drug Monitoring Program, the statewide electronic database that collects data on substances dispensed to individuals by different providers.

After 9 months and case reviews of multiple individuals, the Cecil County LOFRT has recommended expanding overdose response training among close contacts of drug users, improving access to treatment information for family and friends of drug users, increasing public education about the danger of alcohol alone and in combination with other substances of abuse, enhancing outpatient care coordination and patient navigation of the care continuum after inpatient programs for substance use, developing stronger collaboration with primary care, and building greater partnership with the Department of Veterans Affairs. All of these efforts are now under way in Cecil County.

DISCUSSION

By establishing the first interdisciplinary fatality review teams for overdose, Maryland sought to repli-

cate success found in preventing child fatalities. As of November 2014, the three Maryland pilot LOFRTs have met a total of 21 times and discussed more than 70 cases. As a direct result of the multidisciplinary nature of the teams, team members report that they have improved their own agency's referral systems, with an enhanced ear to diverse client needs and knowledge of available community resources. As a result of the county-level approach, jurisdictions have identified risk factors of overdose unique to their communities that may have been masked by statistics amassed from the whole state. The case review reports and recommendations by LOFRTs have provided input to state policy discussions, most recently supporting successful efforts by the Maryland General Assembly in the 2015 session to further expand access to the opioid overdose reversal drug naloxone. LOFRTs identified a number of communities to which naloxone trainings could be targeted to expand the reach of Overdose Prevention and Naloxone Distribution programs, and noticed opportunities for naloxone coprescription with opioids, such as in pain management settings. These observations strengthened the case for the 2015 bill. Information about the bill and naloxone efforts at the state level was communicated to teams, and team members reported increased awareness and knowledge of naloxone in their home counties

As the example from Cecil County makes clear, the diverse nature of the review teams allows for information sharing across law enforcement, health, and public health. The discussion also helps build consensus for policy changes that can save lives. Within the state, formalization of process into law in 2014 and preliminary successes of the pilot teams has spurred interest among many counties. To date, 15 jurisdictions have met or plan to meet in the near future to form their own LOFRTs. Recognition of the importance of this kind of work has also grown nationally, and spurred interest in states across the country.

The formal establishment of LOFRTs provided several critical advantages over the pilot phase. The law provided a clear endorsement of local efforts to review deaths, identify risk factors, and recommend points of intervention in the future. The authority to compel disclosure of data provides a strong basis for rigorous investigation and discussion. Strengthened protections for team members who share sensitive data fosters an environment of trust and facilitates open and honest discussion about missed opportunities in their own agencies or that of others that could help prevent future overdose deaths.

Successful LOFRTs require strong leadership, including a willingness to ask difficult questions about what could have been done differently. It remains to be seen how well this model can expand beyond jurisdictions that are highly motivated to learn more about the overdose problem and take action.

While overdose is a national problem, each overdose happens in a community. A localized approach to overdose fatality prevention can create momentum for local changes that prevent exposure to addictive drugs, help more people access treatment, and coordinate responses to signs of trouble. The LOFRT model is a new and promising tool to fight overdose.

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