
Child Deaths in Maryland

Maryland State
Child Fatality Review Team

FIRST ANNUAL REPORT

1999-2000



STATE OF MARYLAND

DHMH

Parris N. Glendening, *Governor*
Kathleen Kennedy Townsend, *Lt. Governor*
Georges C. Benjamin M.D., *Secretary,*
Maryland Department of Health & Mental Hygiene



Child Deaths in Maryland

Maryland State Child Fatality Review Team

FIRST ANNUAL REPORT

1999-2000



Submitted to:
Georges C. Benjamin M.D., Secretary,
Maryland Department of Health & Mental Hygiene

Prepared by:
The Center for Maternal & Child Health
Bonnie Birkel, CRNP, MPH, Director
Department of Health and Mental Hygiene
201 West. Preston St., Room 318
Baltimore, Maryland 21201
Phone: 410-767-6713

December, 2000



TABLE OF CONTENTS

	<i>Page</i>
Executive Summary	ii
Vision, Mission and Guiding Principles	iv
Background of the State Child Fatality Review Team Process	1
Progress of Child Fatality Review Teams	2
Previous Efforts at Child Fatality Investigation and Review	4
Child Deaths	6
Childhood Injuries	11
Maryland Occupant Protection Program	14
Future State Team CFR Activities	16
References	17
Appendix	18



Executive Summary

The Maryland State Child Fatality Review Team was created by Senate Bill 464 in the 1999 session of the Maryland General Assembly. The purpose of the State team is to prevent child deaths in Maryland. In Health-General Article § 5-705 local review teams are established that are multi-agency and multi-disciplinary in composition. Data collected from Vital Statistics, Injury Prevention, Highway Safety and local reviews will help guide the State team in making significant and purposeful recommendations to the legislature and to community action groups aimed at preventing child deaths.

This is a summary of deaths in infancy and childhood in Maryland. The Vital Statistics Administration indicates a decreasing trend in the number of total children's deaths age 0 – 17 years, from 1157 in 1990 to 942 in 1999. This overall trend represents a 19% decrease over ten years.

This Annual Report is required by Health-General Article § 5-704 (b) (12). The first Annual Report represents the actual number (945) of child deaths (0 -17 years) from 1998. Approximately a third of these deaths were 'sudden and unexpected' and were autopsied by the Office of the Chief Medical Examiner. Comparison of the causes of death between Maryland and the United States show Maryland data as being consistent with national trends.

Congenital anomalies, short gestation and Sudden Infant Death Syndrome (SIDS) were the three leading causes of death for infants in Maryland and in the United States. Accidents were the leading cause of death for children aged 1 year and older in the State and nation. The implementation of risk reduction activities has markedly decreased the number of SIDS deaths. Efforts to raise awareness of other risks for childhood death might have the same positive impact on the lives of Maryland's children.

As identified in the Annual Report, there are distinct differences in the distribution of child deaths by age, sex and race. Almost half the child deaths were in the neonatal period, birth to 27 days. More male children (60%) died when compared with female children (40%). And when looking at race, 382 children that died were white (47/100,000), 536 were African American (130/100,000) and 27 were from other racial groups (44/100,000), indicating a disproportionately high rate in African American children.

A survey of local jurisdictions in Maryland showed that seven jurisdictions had fully developed Child Fatality Review Teams, six were moderately developed, seven were just beginning and four had not yet started the process. Reasons given for 'not yet started' were lack of funding, lack of manpower and lack of time.

For those jurisdictions with Child Fatality Review teams, the number of meetings held since 1998 ranged from 1 – 27 and the number of cases reviewed ranged from 0 to about 60. Several significant findings and recommendations emerged from the local jurisdiction Child Fatality Reviews. Strategies to reduce deaths due to Motor Vehicle Accidents, Pool Drownings, House Fires, SIDS, Homicide, Suicide and Natural deaths have been implemented by local jurisdictions.

Future CFR Activities

The State Child Fatality Review Team has been meeting for over a year. During this time the State Team has come together to form an organization with the strength and integrity to fulfill the responsibilities outlined in Senate Bill 464. Reflecting on these responsibilities, the future of the State Child Fatality Review Team can be seen in the following planned activities:

- Completing and disseminating guidance to local CFR teams in every county.
- Providing training on initiating, maintaining, and achieving the potential of Local Child Fatality Review Teams.
- Developing and implementing a uniform data collection methodology for use by Child Fatality Review Teams in all counties.
- Examining, in depth, factors which may contribute to the disproportionate burden of child deaths in the African American community.
- Collaborating, as required by law, with state and local panels reviewing child abuse and neglect to identify deaths and potential deaths associated with preventable abuse and neglect.
- Developing , in consultation with local teams, policy recommendations to reduce child deaths in Maryland.

State Child Fatality Review Team Vision, Mission and Guiding Principles

Vision We envision a Maryland where preventable child fatalities are eliminated.

Mission We will review child fatalities to understand the circumstances around those fatalities and to recommend strategies to prevent future child fatalities.

Guiding Principles

1. We work cooperatively with other state and local review systems.
2. We base our recommendations on findings from child fatality reviews.
3. Our understanding of child fatalities must be based on both quantitative and qualitative information from child fatality reviews and observations.
4. Child fatality review must include representatives of different community interests.
5. Child fatality review must be both multidisciplinary and multiagency.
6. Support of and advocacy for local child fatality review is a priority function of the State Child Fatality Review Team.
7. The State Child Fatality Review Team will build on the work of the local teams in their efforts to ensure the protection of children in Maryland.
8. Reviews are conducted with respect for the child and family, and for those who served them.
9. To facilitate the sharing of information openly and honestly, confidentiality is adhered to in all reviews.

Introduction

Child Fatality Review (CFR) is a systematic, multiagency, multidisciplinary review of all unexpected deaths within a jurisdiction. This review process began in Los Angeles County in 1978 as a mechanism to identify fatal child abuse and neglect. CFR has grown to become a system to examine child fatalities within the context of prevention. Detecting and preventing child abuse and neglect remain a central focus of CFR.

In the *Healthy People 2010* Injury / Violence Prevention section, a key objective is to “extend to all fifty States child death review systems with interdisciplinary teams reviewing at least 75 percent of deaths due to external causes for children 14 and under, and making recommendations for prevention”. There are currently forty-one States with CFR systems.

Whatever the cause and manner of death, the majority of childhood deaths are sentinel events for questions about the general child health system and warrant thorough, systematic investigation. The overarching benefit of CFR is an examination of the system of service delivery and the adequacy of services provided. The overall goal of a CFR system is to develop “recommendations for changes to law, rule or policy that it believes would enhance the health, safety and well-being of children”.

Background of the State Child Fatality Review Team Process

- The 1999 session of the Maryland General Assembly brought into law SB 464, an act concerning Child Welfare - Citizen Review Panels and **Child Fatality Review Teams**. A copy of the Senate Bill is included in the Appendix.
- By adding to Article - Health - General, the Maryland General Assembly in Section 5-701 created a **State Child Fatality Review Team** and stated that this team was under the **Department of Health and Mental Hygiene (DHMH)** for budgetary and administrative purposes. The Center for Maternal and Child Health within the Community and Public Health Administration will provide administrative support for this effort.
- The State Team has 25 members appointed by the Governor and is required to meet at least every three months. The purpose of the Team is to prevent child deaths by:
 - (1) Developing an understanding of the causes and incidence of child deaths,
 - (2) Developing plans for and implementing changes within the agencies represented on the Team to prevent child deaths,
 - (3) Advising the Governor, General Assembly and public on changes to law, policy and practice to prevent child deaths.
- In Section 5-705, SB 464 states that “there shall be a multidisciplinary and multiagency Child Fatality Review Team in each county.”

-
- The purpose of the Local Team is to prevent child deaths by promoting cooperation among agencies, developing an understanding of the causes of child deaths, developing plans and recommendations and advising the State Team. The Local Team is also required to meet at least once every three months. One of the key features of the local team is cooperation among agencies. For example, the local representative from the Department of Social Services checks their file for a history of abuse and neglect for the family of the child who has died. This is done with the intent of preventing further abuse, neglect or death.

Progress of Child Fatality Review Teams

Meetings

- Members of the State Child Fatality Review Team were appointed in October 1999. The first meeting of State Child Fatality Review Team occurred on November 8, 1999. From this point through the year 2000, the State Team formally met ten times.
- At the first meeting SB 464 was presented and reviewed with members of the State Child Fatality Review Team. This discussion included a review of the State Citizen Review Board (Department of Human Resources) and the State Council on Child Abuse and Neglect (Office of Children, Youth and Families) and the relationship of these entities with the State Child Fatality Review Team (DHMH).
- Co-chairs of the State Child Fatality Review Team selected by the members of the Team were Sarah Kaplan, Esq. and Dr. Jodi Shaefer. Dr. Shaefer resigned her position as co-chair and as a member of the State Team when she left her position as the Director of the Center for Infant and Child Loss.
- In June 2000, Maryland local health officers were surveyed to determine the extent that Child Fatality Review was being conducted throughout the State. Approximately half of the Maryland jurisdictions have already initiated Child Fatality Review processes. The remaining jurisdictions are in various stages of Child Fatality Review implementation. In addition, all jurisdictions are participants of the Fetal and Infant Mortality Review (FIMR) process, a public health initiative supported with federal maternal and child health funding. Approximately two thirds of all child deaths in Maryland are to infants less than one year old.
- As an initial plan, the State Child Fatality Review Team decided to meet monthly to receive training about the process of Child Fatality Review, to better understand Child Fatality Review as conducted in other states, and to begin the process of developing standardized protocols and procedures.
- In order to coordinate with the State Citizen Review Board for Children and the State Council on Child Abuse and Neglect, currently a State CFR team member meets with the other two groups and reports back to the State team. Additional coordination will occur when the State CFR team develops past the initial planning phase.

-
- The State Team has met on a monthly basis from November 1999 to June 2000. At the last meeting on September 12, 2000 it was decided that meetings would be held on a quarterly basis: December, March, June and September.
 - Sarah Kaplan's role as chair of the State Child Fatality Review Team will end in November. At the beginning of her term (November 1999), Ms. Kaplan had agreed to serve as chair for one year.
 - At the December 5, 2000 State CFR team meeting, Sally Dolch was elected as Chair and Tom Bowers as Vice Chair. Legislation regarding attendance at State Boards or Commissions by a member appointed by the Governor was presented to the team. The first annual CFR report was distributed for comment. A motion to make it the State team report was made and seconded. Since there was no opposition to the motion, the report was accepted as the State CFR team report. The results from the local jurisdiction CFR survey were shared with the team. Concern for those jurisdictions without CFRs was expressed, and ways to help them get started were discussed.

Training

- On June 28, 2000 a CFR training was held for all twenty-four jurisdictions. A common goal -- the reduction of child fatalities in the State, and a common vision -- a State where preventable child fatalities are eliminated -- were the theme for the training. The training focused on how to design CFRs at the local level, and procedures for local review teams were presented. Newcomers and experienced jurisdictions shared their CFR experiences and updates. Discussion and materials centered around the legislation and duties of the CFR team, data on child deaths in 1998, a draft manual for procedures for Local Case Review, a draft State CFR 2 Year Plan, a draft vision, mission and guiding principles statement, and contact lists for State CFR team, Advisors and Staff.

Subcommittees

- At the January 2000 meeting four committees were formed: Data Committee, Training/Funding Committee, Protocols/Procedures Committee, and Public Relations/Outreach Committee. Committees will meet as needed to work on the tasks outlined in the Two Year Plan.
- The Data committee met to decide on what data elements to collect. Consistency of data collection, uniform access to information, confidentiality and reporting were explored. The Training Committee reported on the participation of CFR at the conference organized by the Governor's Office of Children, Youth and Families. The Protocol Committee began looking at protocol, starting with the process of notification. The Public Relations Committee started by defining "public relations" and reviewed what other states were using.

Local CFR Teams

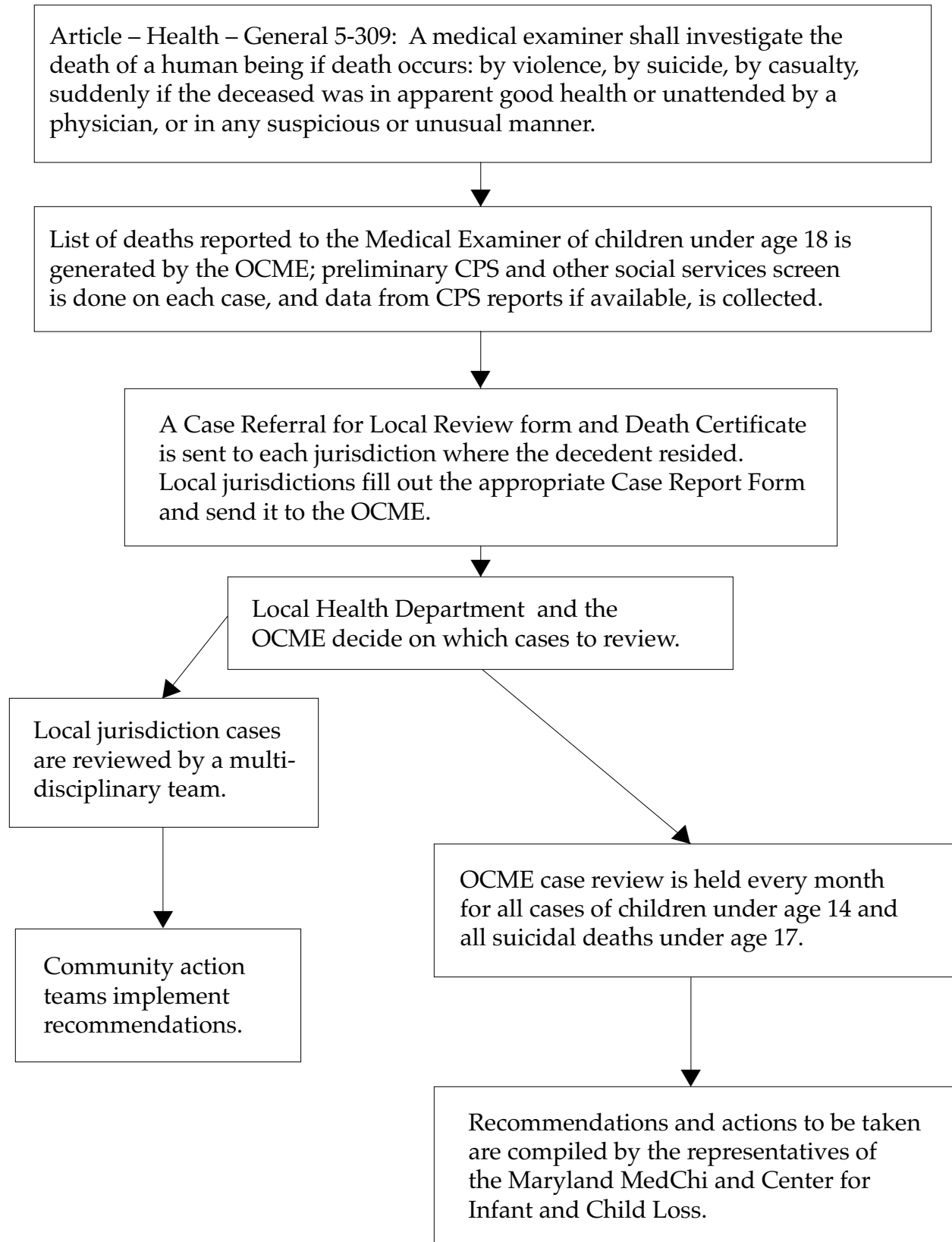
- A survey of local jurisdictions in Maryland showed that seven jurisdictions had fully developed Child Fatality Review Teams, six were moderately developed, seven were just beginning, and four had not yet started the process. Reasons given for 'not yet started' were lack of funding, lack of manpower, and lack of time.
- For those jurisdictions with Child Fatality Review teams, members of the local CFR team consisted of representatives from various agencies: Health Department, Addictions, State's Attorney, Social Services, Board of Education, Police Department, Medical Examiner, Fire Department, Local Hospital, Child Care Administration, Sexual Abuse, etc.
- The local CFR team was lead by the Health Officer, the Local Police, the Local Management Board or the State's Attorney, etc., depending on the jurisdiction. Meetings were facilitated by the Health Officer, CFR Coordinator, Local Hospital, Child Health Director, etc., depending on the jurisdiction.
- For those jurisdictions with Child Fatality Review teams, the number of meetings held since 1998 ranged from 1 – 27 and the number of cases reviewed ranged from 0 to about 60. Several significant findings and recommendations emerged from the local jurisdiction Child Fatality Reviews. Strategies to reduce deaths due to Motor Vehicle Accidents, Pool Drownings, House Fires, SIDS, Homicide, Suicide and Natural deaths have been implemented by local jurisdictions. The survey summary is included in the Appendix.

Previous Efforts at Child Fatality Investigation and Review

Before the formation of the State CFR Team, an effort to investigate and review child fatalities was conducted in coordination with the Office of the Chief Medical Examiner (OCME), the Department of Human Resources (DHR) and the Center for Infant and Child Loss. Note that these deaths were sudden and unexpected and had age limitations depending on the type of death.

The procedure followed by this Child Fatality Investigation and Review is given in the flow diagram on page 5. This process was adapted from the more detailed procedure followed by the Department of Human Resources which involves steps to include child protective services information, other social services information, local case review, state case review and a non-review case protocol.

DHR/OCME Child Fatality Investigation & Review



Source: Maryland Department of Human Resources, *Multi-Disciplinary Child Fatality Review*, 1999.

Child Deaths

There were 945 child deaths for children 0 -17 years in the State of Maryland for 1998, and 942 child deaths for 1999. Child deaths are classified on the death certificate in four ways: *Natural*, which includes all diseases, prematurity, SIDS; *Accidents*, which include motor vehicle crashes, falls, drowning, fires, farm and recreational related incidents; *Suicide* and *Homicide*. Of the 945 deaths in 1998, about a third were sudden and unexpected deaths (including 61 SIDS deaths). These deaths were autopsied by the Office of the Chief Medical Examiner. It is these deaths that are considered "preventable". A child's death is considered preventable if an individual or the community could reasonably have done something that would have changed the circumstances, thus keeping the child alive.

Data from 1998 are presented in this report. Data from 1999 are not being published at this time due to a change in the coding system. The International Classification of Diseases (ICD) is a classification system developed collaboratively between the World Health Organization and ten international centers so that the medical terms reported by physicians, medical examiners and coroners on deaths certificates can be grouped together for statistical purposes. The US changed from using ICD-9 mortality codes to the new ICD-10 mortality codes beginning with 1999 deaths. The ICD-10 codes have many significant changes. The National Center for Health Statistics is currently conducting a comparability study to determine the impact of ICD-10 on trends in causes of death. Preliminary results are expected in 2001. Since comparability figures are not yet available, the cause of specific mortality for 1999 is not being released.

Healthy People 2010 objective 16-2 gives the target for reduction of child deaths by 2010. For children 1-4 years the target is 25/100,000; the Maryland rate for 1998 is 30/100,000. For children 5-9 years the target is 14.3/100,000; the Maryland rate for 1998 is 13.8/100,000. For adolescents 10-14 years the target is 16.8/100,000; the Maryland rate for 1998 is 18.9/100,000. For adolescents 15-19 years the target is 43.2/100,000; the Maryland rate for 1998 is 79/100,000. The Maryland rate is higher for children aged 1-4 years and adolescents aged 10-14 years and 15-19 years.

How does Maryland compare to its neighbors in terms of childhood mortality? Using data from the National Center for Health Statistics for 1998, the number of deaths and crude death rate (number of deaths/100,000 persons) was compared for Maryland (1089 or 77/100,000) vs. Pennsylvania (2062 or 65/100,000), Virginia (1310 or 71/100,000), Washington, DC (183 or 157/100,000), Delaware (172 or 86/100,000) and West Virginia (353 or 76/100,000). (*Note: the number of deaths is for children 0 -19 years.*) The crude death rate allows for comparison of states with different populations. Maryland, Virginia, West Virginia, Delaware and Pennsylvania have similar crude death rates (65 – 86/100,000); however, Washington, DC has a crude death rate of almost twice these states.

A comparison was made between causes of death for Maryland State and the United States (US) for 1998. The ten leading causes of death shown in Table 1 and 2 for US infants, children and adolescents and for Maryland infants, children and adolescents compare well with each other in terms of rank. Congenital anomalies, short gestation and Sudden Infant Death Syndrome (SIDS) were the three leading causes of death for infants in Maryland and in the United States. Accidents were the leading cause of death for children aged 1 year and older in the State

and nation. The implementation of risk reduction activities has markedly decreased the number of SIDS deaths. Efforts to raise awareness of other risks for childhood death might have the same positive impact on the lives of Maryland's children.

**Table 1. Ten Leading Causes of Death in Infants Ranked by Number of Deaths
United States vs. Maryland, 1998**

<i>Cause of Death using ICD - 9 codes</i>	<i>US Infants</i>	<i>MD Infants</i>
Congenital anomalies	1	2
Disorders relating to short gestation & unspec. low birthweight	2	1
Sudden Infant Death Syndrome	3	3
Newborn affected by maternal complications of pregnancy	4	4
Respiratory distress syndrome	5	5
Newborn affected by complications of placenta, cord & membrane	6	6
Infections specific to the perinatal period	7	7
Accidents and adverse effects	8	9
Intrauterine hypoxia and birth asphyxia	9	8
Pneumonia and influenza	10	
Intestinal infections		10

Source: National Center for Health Statistics, Vital Statistics System, 2000

**Table 2. Ten Leading Causes of Death in Children and Adolescents Ranked by Number of Deaths
United States vs. Maryland, 1998**

<i>Cause of Death using ICD - 9 codes</i>	<i>United States</i>	<i>Maryland</i>
Accidents and adverse effects	1	1
Malignant neoplasms	2	3
Homicide and legal intervention	3	2
Suicide	4	6
Congenital anomalies	5	4
Heart disease	6	5
Pneumonia and influenza	7	10
Bronchitis, emphysema, asthma	8	8
Cerebrovascular diseases	9	
Benign neoplasms	10	9
Septicemia		7

Source: National Center for Health Statistics, Vital Statistics System, 2000

**Table 3. Infant and Child Deaths and Death Rate by Sex and Race
Maryland, 1998**

<i>Demographic Characteristic</i>	<i>< 1 year</i>	<i>Rate*</i>	<i>1-17 years</i>	<i>Rate*</i>
MALE	349	954.0	269	43.3
FEMALE	241	607.6	113	19.0
Total	563	784.1	382	31.4
WHITE	235	550.7	147	19.0
AFRICAN AMERICAN	367	1542.6	169	43.5
OTHER	16	299.9	11	19.6
Total	618	860.7	327	26.9

**Rate = Number of Deaths/100,000 population*

Source: Maryland Vital Statistics Administration, DHMH, 1999

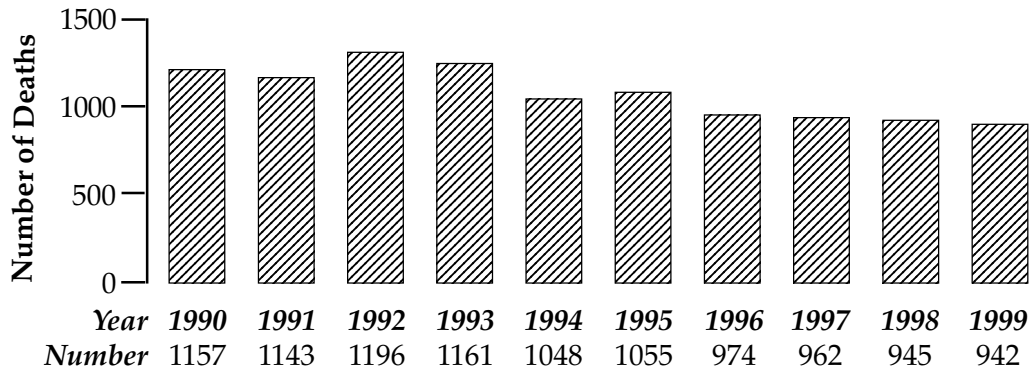
Data from the Vital Statistics Administration have been used to examine the trend in child deaths under the age of 18 and the distribution of deaths by age, race, sex and jurisdiction.

While statistics can provide an overall picture of fatalities, it is through the review of each individual child death that the local teams are best able to understand and take action to prevent other deaths. Although the reviews focus on the deaths to children, these deaths are often sentinel events that warn us that other children are at risk and in harm's way. Often the only difference between a death and a non-fatal event is a few feet, a few inches or a few seconds. For each child who dies from a preventable cause, there are more children at serious risk of death, and still more at potential risk of being harmed. This association is also related to child death caused by abuse or neglect. In these cases, the deaths or abuse of additional children may be prevented by interventions resulting from the child fatality investigation.

In Figure 1, trend data are presented from 1990 – 1999. The number of child deaths gradually decreased over the ten year period. In 1990 there were 1157 child deaths under the age of 18 in the State of Maryland, followed by a peak of 1196 deaths in 1992, to a ten year low of 942 deaths in 1999. This represents a 19% decrease from 1990 to 1999. A total of 10,583 children died in the ten year reporting period.

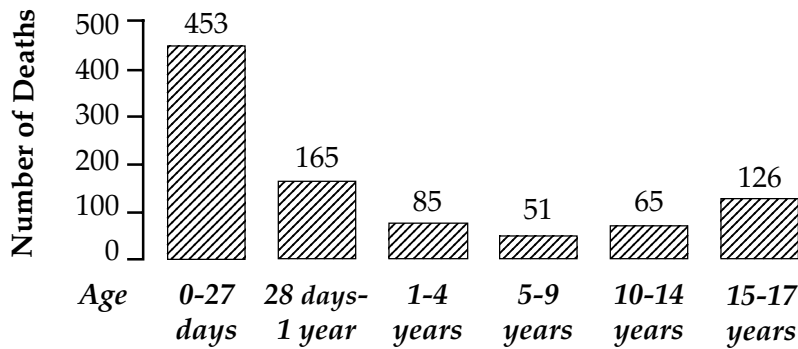
In 1998, almost half the child deaths were in the neonatal period, birth to 27 days (48%) (Figure 2). The next highest number of deaths is in the post neonatal period, 28 days to one year, 17%. **Together, 65% of deaths occur to children less than 1 year of age.** Table 3 presents data by age for the demographic characteristics sex and race. When analyzed by sex, more male children (60%) died compared to female children (40%), as shown in Figure 3. Note also the difference in death rates for infants < 1 year and children 1-17 years, as well as the racial disparities for both age groups.

Figure 1. Maryland Child Deaths, 1990 -1999 for Children Under the Age of 18 Years.



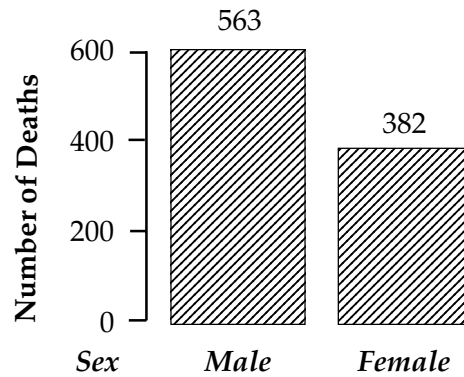
Source: Maryland Vital Statistics Administration, DHMH, 2000

Figure 2. Maryland Child Deaths by Age for 1998.



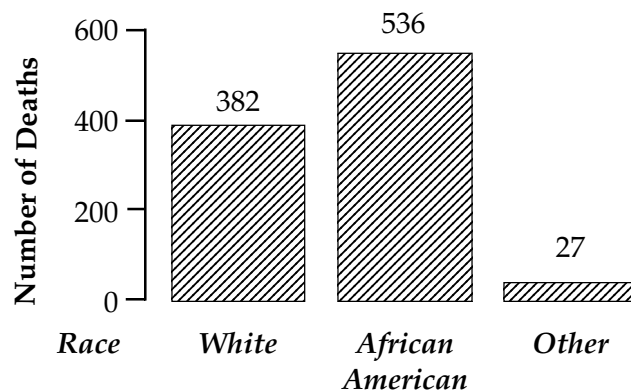
Source: Maryland Vital Statistics Administration, DHMH, 2000

Figure 3. Maryland Child Deaths by Sex for 1998



Source: Maryland Vital Statistics Administration, DHMH, 2000

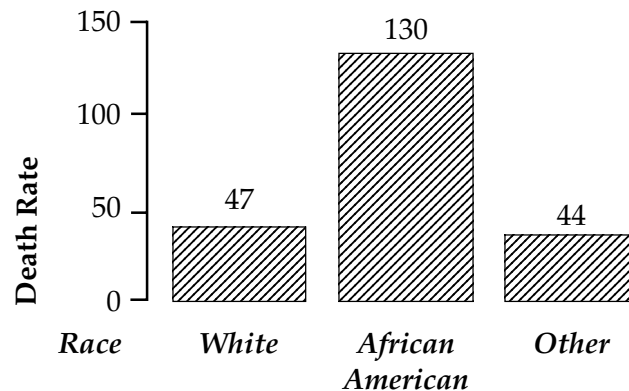
Figure 4. Maryland Child Deaths by Race for 1998



Source: Maryland Vital Statistics Administration, DHMH, 2000

Analysis of child deaths by race in Figure 4 showed that 382 children that died were white (40%), 536 were African American (57%) and 27 were from other racial groups (3%). African American children had the highest death rate (130/100,000), followed by White children (47/100,000) and children of other races (44/100,000), indicating a disproportionately high rate in African American children (Risk ratio 3:1) (Figure 5). Tables for child deaths for each of the twenty-four jurisdictions by age, race and sex are included in the Appendix.

Figure 5. Maryland Child Death Rates by Race for 1998



Source: Maryland Vital Statistics Administration, DHMH, 2000.

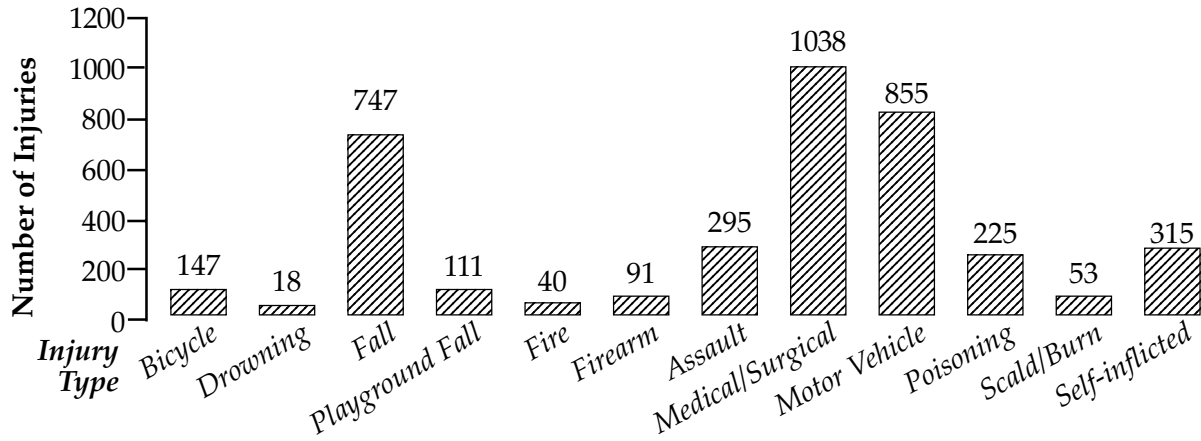
Childhood Injuries

Senate Bill 464, which created the State Child Fatality Review Team and Local Child Fatality Review Teams states that one of its purposes is to prevent child deaths by defining “Near Fatality” and developing procedures and protocols to review cases of near fatality. Hospital discharges due to injury could be one way of looking at defining near fatality, and may be used as a proxy measure for near fatal cases in children under 18.

Hospital discharges due to injury among Maryland children under the age of 18 are based upon information derived from the non-confidential files of Maryland’s Health Services Cost Review Commission (HSCRC). A report based on these files is produced by the Office of Injury and Disability Prevention, DHMH. The Commission, charged with the responsibility for setting hospital rates in Maryland, administers Maryland’s hospital discharge database. Under the provisions of the Code of Maryland (COMAR 10.337.06) acute care hospitals in Maryland provide hospital discharge information in a standardized format to HSCRC. The information provided includes demographic, clinical and chart data, such as diagnostic and procedures codes. The diagnostic codes are in the format found in the 9th revision of the International Classification of Diseases (ICD-9-CM). Injuries are grouped to form categories based on codes. For the purpose of this report, firearm injuries are limited to unintentional injuries by firearms. Assault by firearm is included in the assault category, and self-inflicted injury by firearm is included in the self-inflicted category.

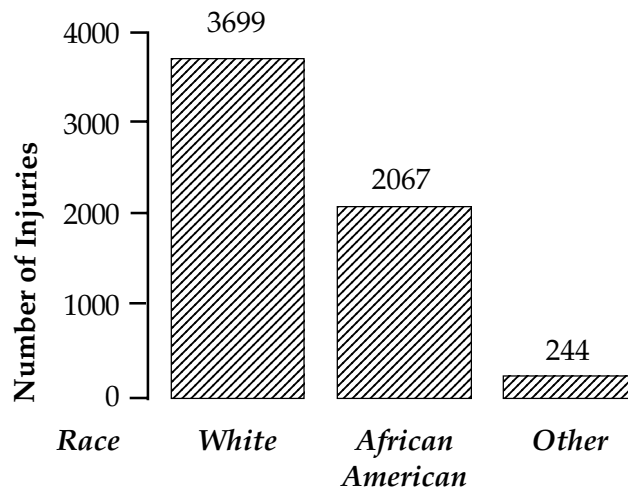
In 1998, although most hospital discharges due to injury among children were from misadventures occurring during medical and surgical care (1038), motor vehicle traffic and non-traffic accidents (855) and falls (747) were also leading causes of injury. Figure 6 shows the number of hospital discharges due to injury by cause. Analysis of the medical and surgical injuries will be undertaken during the next year, to better understand their nature, causes and preventability.

Figure 6. Hospital Discharges Due to Injury Among Maryland Children by Selected Causes of Injury, 1998



Source: HSCRC data for Maryland, 1998

Figure 7. Hospital Discharges Due to Injury Among Maryland Children by Race*, 1998



* Missing Race for 34 children.

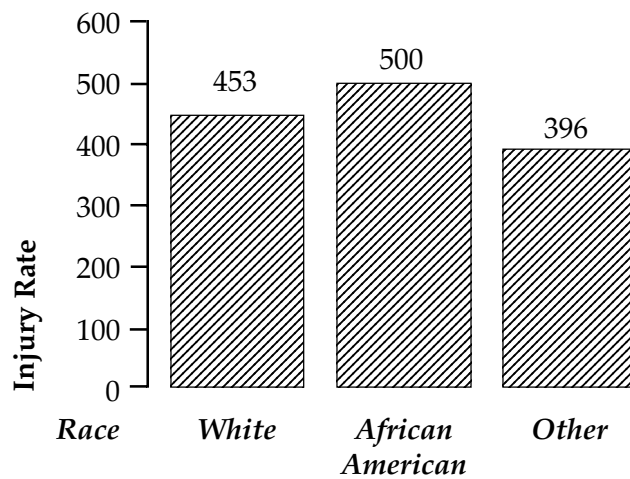
Source: HSCRC data for Maryland 1998.

Hospital discharges due to injury by race in Figure 7 indicate most injuries occurred in White children (3699) compared to African American children (2067) and children of other races (244). However, African American children had the highest rate of injury (500/100,000) compared to White children (453/100,000) and children of other races (396/100,000) (Figure 8).

Age variations in hospital discharges due to injury were evident. The number of injuries increased with the age of children as shown in Figure 9.

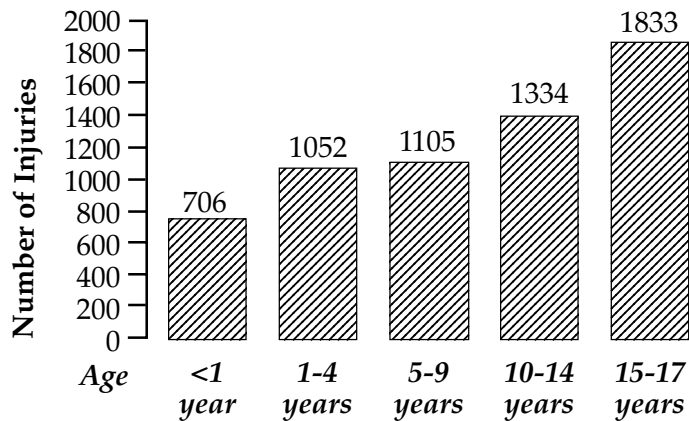
Tables with hospital discharges due to injury for each of the 24 jurisdictions, by race, age and gender are included in the Appendix.

Figure 8. Hospital Discharges Injury Rate Among Maryland Children by Race, 1998



Source: HSCRC data for Maryland 1998.

Figure 9. Hospital Discharges Due to Injury Among Maryland Children by Age*, 1998



*Missing age for 14 children.

Source: HSCRC data for Maryland 1998.

Maryland Occupant Protection Program

Since injury from motor vehicle accidents are the second leading cause of injury, data and information from the Maryland Highway Safety Office (MHSO) are presented regarding seat belt use.

This program provides information on the lifesaving and injury-reducing benefits of seat belts and child safety seats for all residents of Maryland. The Maryland Highway Safety Office works with law enforcement agencies to promote and enforce Maryland's occupant protection laws, and partners with other health and safety advocates to educate citizens about these laws.

Despite the difficulty of capturing accurate observational data regarding child restraint use, the Maryland Highway Safety Office does maintain records of restraint use of children involved in crashes. Usage rates based on this data indicate statistics that parallel the national usage rates for children. In 1999, for children up to age 4 involved in crashes of any severity, 87% were in some form of restraint. This figure represents a two percentage point increase over the 1998 figure. For children ages 5-10, 68% were restrained in some way. This age group is one on which the MHSO and its partners have begun to focus heavily, because of the necessity for booster seats for their age and weight, and the lack of knowledge about these restraint systems by the general public. As expected, children ages 11-16 were restrained the least, only 62% of the time. Nonetheless, the overall number of children who were completely unrestrained at the time of the crash has declined significantly over the last four years. Table 4 gives a more complete picture of serious injuries vs. restraint use.

While this increase in child restraint use is a promising trend, the misuse rate of child safety seats remains steady throughout Maryland at 87%. This figure virtually mirrors the national misuse rate of 85%, and was obtained through extensive research conducted at SAFE KIDS Buckle Up Safety Seat Checkup Events around the state throughout 1997 and 1998. The MHSO and other agencies are continuing to conduct these events in order to obtain this misuse data, as well as to assist families in combating the problem of safety seat/seat belt misuse for their precious young passengers.

Though motor-vehicle related fatal injuries (Table 5) to children younger than age 11 have begun to decline over the last several years, there has been little decline in fatalities of younger teens through the age of 16. The Maryland Highway Safety Office works to eliminate these fatalities through various methods, including a youth "buckle up" initiative that will focus on the young driver, and a "buckle up in your pickup" program aimed at the young male pickup truck driver.

Table 4. Use of Safety Equipment by Children in Maryland, 1996 -1999

	1996	1997	1998	1999
Serious Injuries and Fatalities Age < 5 Years				
Child Safety Seat	213	217	179	197
Safety Belt	185	293	144	160
None	125	117	38	55
TOTAL	523	527	361	412
Serious Injuries and Fatalities Age 5-10 Years				
Child Safety Seat	21	18	19	17
Safety Belt	608	629	608	574
None	241	178	156	95
TOTAL	870	825	783	686
Serious Injuries and Fatalities Age 11-16 Years				
Child Safety Seat	1	1	1	1
Safety Belt	892	1000	915	900
None	628	517	407	310
TOTAL	1521	1518	1323	1211
GRAND TOTAL	2914	2870	2467	2309

Source: Maryland Highway Safety Office, 2000

Table 5. Child Deaths due to Motor Vehicle Accidents in Maryland, 1996 - 1999

Fatality	1996	1997	1998	1999
Age < 5	8	5	4	4
Age 5-10	11	9	7	3
Age 11-16	11	15	24	16
TOTAL	30	29	35	23

Source: Maryland Highway Safety Office, 2000

Future CFR Activities

The State Child Fatality Review Team has been meeting for over a year. During this time the State Team has come together to form an organization with the strength and integrity to fulfill the responsibilities outlined in Senate Bill 464. Reflecting on these responsibilities, the future of the State Child Fatality Review Team can be seen in the following planned activities:

- Completing and disseminating guidance to local CFR teams in every county.
- Providing training on initiating, maintaining, and achieving the potential of Local Child Fatality Review Teams.
- Developing and implementing a uniform data collection methodology for use by Child Fatality Review Teams in all counties.
- Examining in depth the factors which may contribute to the disproportionate burden of child deaths in the African American community.
- Collaborating, as required by law, with state and local panels reviewing child abuse and neglect to identify deaths and potential deaths associated with preventable abuse and neglect.
- Developing policy recommendations, in consultation with local teams, to reduce child deaths in Maryland.

References:

1. Child Fatality Review Advisory Group, Maternal and Child Health Bureau, US Department of Health and Human Services, July 1993.
2. Durfee MJ, Gellert GA, Tilton-Durfee D., *Origins and Clinical Relevance of Child Death Review Teams*. JAMA 1992; 267 (23): 3172-3175.
3. *Healthy People 2010: National Health Promotion and Disease Prevention Objectives*. Washington, DC: US Department of Health and Human Services, Public Health Service, 2000.
4. American Academy of Pediatrics Committee on Child Abuse and Neglect and Committee on Community Health Services, *Investigation and Review of Unexpected Infant and Child Deaths* (RE9336). Pediatrics 1993; 92 (5): 88.
5. North Carolina Child Fatality Task Force, *Preliminary Report to the Governor and the North Carolina General Assembly*. May 1992.
6. Senate Bill 464, Chapter Number 355.
7. CFR Training Packet, June 2000.
8. Maryland Department of Human Resources, *Multi-Disciplinary Child Fatality Review*, 1999.
9. Maryland Department of Health and Mental Hygiene, Vital Statistics Administration, Division of Health Statistics, *Annual Vital Statistics Report*, Maryland, 1998.
10. Child Deaths in Michigan, Michigan Child Death State Advisory Team, *First Annual Report*, June 1999.
11. South Carolina, Child Fatalities, 1993-1999, *Annual Report*, March 2000.
12. National Center for Health Statistics (NCHS), Vital Statistics System, 2000.
13. Maryland Department of Health and Mental Hygiene, Office of Injury and Disability Prevention, *Injuries in Maryland, a Statewide Perspective*, 1995-1998.
14. *Analysis of Deaths – Vermont, Children from Birth to 18 Years in 1997*, Vermont Child Fatality Review Committee, October 1999.
15. Maryland Highway Safety Office, *Maryland Highway Safety Office Benchmark Report*, Federal Fiscal Year 2001.

Appendix

	Page
1. Senate Bill 464, Chapter Number: 355	1-24
2. Child Deaths by Age, Sex, Race for Twenty-four Jurisdictions	25-26
<i>Table 6. Maryland Child Deaths by Age and Jurisdiction for 1998</i>	
<i>Table 7. Maryland Child Deaths by Race, Sex and Jurisdiction for 1998</i>	
3. Hospital Discharges Due to Injury Among Children by Age, Sex, Race for Twenty-four Jurisdictions	27-29
<i>Table 8. Hospital Discharges Due to Injury Among Maryland Children by Race, Sex and Jurisdiction, 1998</i>	
<i>Table 9. Hospital Discharges Due to Injury Among Maryland Children by Race and Jurisdiction, 1998</i>	
<i>Table 10. Hospital Discharges Due to Injury Among Maryland Children by Age and Jurisdiction, 1998</i>	
4. Certificate of Death	30
5. Case Report Forms	31-47
<i>Case Report Form for Natural Deaths</i>	
<i>Case Report Form for Deaths due to SIDS or Undetermined Causes</i>	
<i>Case Report Form for Unnatural Deaths</i>	
6. Case Referral for Local Review Form	48
7. Local Jurisdiction CFR Survey Results	49-50
8. State CFR Team Members	51

STATE CFR TEAM

Phyllis Baker, *Citizen Member*
Diane Banchiere, *Citizen Member, Advocates For Children and Youth*
Donna Becker, *Director, The Center for Infant and Child Loss*
Jennifer Bodine, *Citizen Member*
Tom Bowers, *designee for The Secretary of the State Police*
Jane Dawson, *Citizen Member*
Sally Dolch, *Citizen Member, Wicomico Partnership For Families*
Nerita Estampador-Ulep, *designee, American Academy of Pediatrics-Maryland*
Gregory Fernandopulle, *Citizen Member, Child Psychiatrist*
Carolyn Fowler, *Citizen Member, Baltimore County Health Department*
David Fowler, *designee for The Chief Medical Examiner*
Carol Garvey, *designee for The Secretary of Health and Mental Hygiene*
Tom Grazio, *designee for The Secretary of Human Resources*
Sarah Kaplan, *Citizen Member*
Edward Kilcullen, *Citizen Member, Maryland CASA Association*
Scott Krugman, *Pediatrician, Franklin Square Hospital Center*
Eileen McInerney, *designee for The Attorney General*
Pierre Mooney, *Citizen Member*
David Putsche, *designee for The Director of the Alcohol and Drug Abuse Administration*
Jeannine Robinson, *designee for The Special Secretary for Children, Youth and Families*
Geneva Sparks, *designee for The Chief of Maryland Vital Statistics Administration*
Richard Steinke, *designee for The State Superintendent of Schools*
Joel Todd, *designee for The President of the State's Attorneys' Association*
Lee Towers, *designee for The Secretary of Juvenile Justice*
Anntinette Williams, *Citizen Member*

STATE CFR TEAM ADVISORS

Bonnie Birkel, *Director, Center for Maternal and Child Health, DHMH*
Lori Demeter, *Director, Office of Injury and Disability Prevention, DHMH*
Cheryl Duncan DePinto, *Chief, Child and Adolescent Health, CMCH, DHMH*
Maureen Edwards, *Medical Director, CMCH, DHMH*
Daniel Timmel, *State FIMR Program Coordinator under contract to DHMH,
Maryland MedChi*

STATE CFR TEAM STAFF

Andy Hannon, *Chief, Community Initiatives and Partnerships, CMCH, DHMH*
Pankaja Panda, *Epidemiologist, Center for Maternal and Child Health, DHMH*



The services and facilities of the Maryland Department of Health and Mental Hygiene (DHMH) are operated on a non-discriminatory basis. This policy prohibits discrimination on the basis of race, color, sex, or national origin, and applies to the provisions of employment and granting of advantages, privileges, and accommodations.

The Department, in compliance with the Americans with Disabilities Act, ensures that qualified individuals with disabilities are given an opportunity to participate in and benefit from DHMH services, programs, benefits, and employment opportunities.