Department of Health and Mental Hygiene

Mortality and Quality Review Committee

Annual Report

Calendar Year 2007

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Governor

Anthony G. Brown
Lieutenant Governor

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Secretary

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I. THE MORTALITY REVIEW COMMITTEE

The Mortality and Quality Review Committee (MQRC) was established in the Department of Health and Mental Hygiene (DHMH) through legislation effective October 2000, and codified in Maryland Annotated Code, Health General Article § 5-801 through §5-810. As originally enacted, the statute focused on the examination of deaths of individuals in programs or facilities operated or licensed by the Developmental Disabilities Administration (DDA). Subsequently, in 2001, the statute was amended to also require the MQRC to review deaths of individuals in facilities or programs operated or licensed by the Mental Hygiene Administration (MHA). This annual report of the Committee encompasses 2007, the seventh calendar year of the Committee's activities. Subsequent annual reports will be published at the conclusion of each calendar year.

The purpose of the Committee is to prevent avoidable deaths and to improve the quality of care provided to persons with developmental disabilities or mental illnesses. To achieve this purpose the Committee performs the following duties:

1. Evaluates causes or factors contributing to deaths reviewable under the statute;
2. Identifies patterns and systemic problems, and ensures consistency in the review process; and
3. Makes recommendations to the Secretary to prevent avoidable deaths and improve quality of care.

Members of the Committee are appointed by the Secretary and include a licensed board certified physician in an appropriate specialty, a psychopharmacologist, a licensed physician on staff with the Department of Health and Mental Hygiene (DHMH), two specialists, one in the field of developmental disabilities and the other in the field of mental illness, a licensed provider of community services for persons with developmental disabilities, a licensed provider of community services for persons with mental illness, two consumers, one with developmental disabilities and the other with mental illness, two family members, one representing a consumer with developmental disabilities and the other representing a consumer with mental illness, the Deputy Secretary of Public Health or the Deputy Secretary's Designee, the Director of the Office of Health Care Quality (OHCQ), a licensed physician representative from the medical examiner's office, a licensed nurse who works with persons with developmental disabilities in a program operated by a State licensed provider in the community, one member of an advocacy group for persons with developmental disabilities, and two members of advocacy groups, one for persons with developmental disabilities and the other for persons with mental illnesses.

The terms of the members are determined at the time of appointment. The terms range from one to three years. A member may not serve for more than two consecutive full terms. The Secretary may remove any member of the Committee for good cause. Members do not receive compensation for service on the Committee.

The Mortality Review Committee meets monthly. A majority of the members of the Committee must be present to vote on decisions related to cases reviewed. The Director of the Office of Health Care Quality does not vote on the disposition of an individual death case previously reviewed by the Office of Health Care Quality. Meetings of the Committee are closed to the public and all deliberations are confidential. All records or files of the Committee, its deliberations, findings, recommendations, and database are confidential . Members may not

disclose what transpired at a meeting and are not allowed to communicate directly with a provider, a State Facility Director, a family member, or guardian of the individual who is the subject of a death review. Mortality Review Committee members have immunity from liability for any action as a member of the Committee or for giving information to, participating in, or contributing to the function of the Committee or its subcommittee.

II. REPORTING REQUIREMENTS

The Mortality Review Committee is required to prepare a report for public distribution at least once a year. The annual report must include aggregate information that sets forth the numbers of deaths reviewed, the age of the deceased, causes and circumstances of death, a summary of the Committee's activities, and summary of findings.

In addition to the annual report for public distribution, the Committee or its subcommittee may, in its discretion, at any time issue preliminary findings or make preliminary recommendations to the Secretary or the Director of the Office of Health Care Quality. The preliminary findings or recommendations are confidential and not discoverable or admissible.[1]

III. THE DEATH REVIEW PROCESS

The Mortality Review Committee is one link in the process of reviewing of deaths in the programs and facilities licensed or operated by the Developmental Disabilities and Mental Hygiene Administrations. The review process begins with a report of a death to the Office of Health Care Quality (OHCQ) and other appropriate agencies. The Developmental Disabilities and Mental Hygiene Administrations both have reporting requirements for deaths in their programs and facilities governed by statute or policy.

The Developmental Disabilities Administration issued a *Policy on Reportable Incidents and Investigations* which became effective July 29, 1999.[2] The purpose of the policy is to protect individuals from harm and to enhance the quality of services provided to them. The policy applies to all State Residential Centers (SRCs) and community-based agencies licensed by the DDA. [3] All deaths in entities covered by the policy must be reported to the following entities:

- The Office of Health Care Quality (OHCQ)
- Developmental Disabilities Administration (DDA) regional office
- Developmental Disabilities Administration (DDA) headquarters
- Family/legal guardian/advocate(s)
- Case manager/resource coordinator
- State protection and advocacy agency (Maryland Disability Law Center)
- Local health department, and
- Police

[1] Md. Health – General Code Ann. §5-809; Md. Health – Occupations Code Ann. §14 –501 (2001).
[2] The *Policy on Reportable Incidents and Investigations* was revised and reissued in December 2001, April 2003, October 2003, July 2005, July 2006, August 2006, and October 2007.
[3] The reporting requirements also apply to those agencies operating by waiver under Md. Health –General Code Ann. § 7-903 (b) (2000).

The Mental Hygiene Administration policy on reporting of deaths in a State funded or operated program or facility is governed by Maryland Annotated Code Article Health General §10-714 (2000). This policy applies to all State-funded or operated facilities and community-based agencies receiving State funds. All deaths in entities covered by the policy must be reported to the following:

- Sheriff, police or chief law enforcement official;
- Director of the Mental Hygiene Administration;
- Health Officer in local jurisdiction; and
- State protection and advocacy agency (Maryland Disability Law Center)

Under the provisions of the statute establishing the Mortality Review Committee, the Office of Health Care Quality performs an investigation of each death of an individual with developmental disabilities or mental illnesses who, at the time of death, resided in, or was receiving services from programs or facilities covered under the statute. The purpose of the death investigation is to determine any deficient practice due to regulatory non-compliance. Two exceptions apply to the OHCQ death investigation: 1) OHCQ may not review the care or services provided in an individual's private home, except to the extent needed to investigate a licensed provider that offered services in the individual's home, and 2) unless a member of the Committee requests a review, the Office of Health Care Quality may choose not to review a death if the circumstances, based on reasonable judgment, are readily explained and require no further investigation.

Once OHCQ completes its investigation, the case is referred to the Mortality Review Committee. The MRC then reviews each death case. The Committee may request additional information and documentation including individual records, service of care records, medical records, discharge summary, autopsy reports, medication administration records, and any deficiency statements and plans of corrections if it determines further investigation is warranted. Once a request for information has been made, a provider of medical care, including dental and mental health care, a state or local government agency and a provider of residential or other services must give access to that information. The Committee may prepare questions for the provider agency, State Facility director or other relevant person, or may request the attendance of the provider, director, or other relevant person at a MRC meeting.

IV. COMMITTEE ACTIVITIES AND STATISTICAL INFORMATION

The MRC was scheduled to meet monthly to review death cases referred by OHCQ. However, the scheduled meetings for January and February were canceled due to inclement weather, and the meeting for July was not held per OHCQ request. Therefore the MRC met 9 times in calendar year 2007. The MRC reviewed a total of 266 death cases (88 DDA and 178 MHA) for calendar year 2007. At the close of calendar year 2007, 269 cases were closed and 2 cases remained open for further review (FFR). The 269 cases that were closed in 2007 included 5 FFR cases carried over from calendar year 2006.

Number and distribution of deaths by age group

TABLE 1: NUMBER OF DEATHS REVIEWED IN 2007[1] AND NUMBER OF DEATHS OF INDIVIDUALS RECEIVING DDA OR MHA SERVICES IN 2007 COMPARED TO THE NUMBER OF DEATHS AMONG ALL MARYLANDERS BY AGE GROUP IN 2006

Age Group (years)	Deaths Reviewed by MRC in 2007 (DDA)	Deaths of Individuals Receiving DDA Services in 2007	Deaths reviewed by MRC in 2007 (MHA)	Deaths of Individuals Receiving MHA Services in 2007	Total Deaths in Maryland (2006)[2]
<5 years	1	1	0	0	*695*
5 – 14	3	1	1	0	*106*
15 – 24	6	5	4	5	*702*
25- 34	7	13	9	9	*863*
35 – 44	7	22	31	39	*1,793*
45 – 54	24	55	67	76	*3,674*
55 – 64	22	35	32	57	*5,315*
65 – 74	10	15	19	26	*6,909*
75 – 84	3	11	14	12	*11,620*
85+	5	3	1	2	*11,813*
Not stated	n/a	1	0	0	*1*
Total	**88**	**162**	**178**	**226**	***43,491***

Note:

1. *The DDA and MHA cases reviewed may have included deaths that occurred in 2004, 2005, 2006 and 2007.*
2. *Data provided by DHMH Vital Statistics Administration; 2007 data not yet available*

Table 1 compared the numbers of death cases reviewed in 2007 and the number of deaths of individual receiving DDA or MHA services during this time period to the number of deaths among all Marylanders in 2006. Data indicated that among all Maryland residents, the majority of deaths occurred were in the age ranges of 75- 84 years, and 85 years and over. In comparison among people with disabilities, the majority of deaths were in the age groups of 45-54 and 55-64 years of age for DDA population, and in the age groups of 45-54 and 55-64 for MHA population, respectively.

Gender and Percent Distribution of Reviewed Deaths

TABLE 2: PERCENT DISTRIBUTION OF DDA AND MHA DEATHS BY GENDER REVIEWED IN 2007

Administration	Percent Distribution-DDA	Percent Distribution-MHA
Male	58%	48%
Female	42%	52%

Note: As of December 31, 2007, the population served by DDA consisted of 58% of male and 42% *of females.*
In calendar year 2007, the population served by MHA consisted of 48% males, 52% *females.*

Location of Death

Table 3 illustrated the number and percent distribution of where deaths occurred.

TABLE 3: NUMBER AND PERCENT DISTRIBUTION OF WHERE DEATHS OCCURRED IN THE CASES REVEIWED IN 2007

Location of Death	# & % Distribution 2007 (DDA)	# & % Distribution 2007 (MHA)
Hospice	2 (2%)	6 (3%)
Hospital	54 (61%)	79 (44%)
Nursing Home	7 (8%)	7 (4%)
Residence	22 (25%)	60 (34%)
1. Alternative Living Unit	*11*	--
2. Comm. Supported Living Arrangement	*1*	--
3. Individual Family Care home	*0*	--
4. Group Home	*1*	--
5. Family Home	*8*	--
6. State Residential Center	*1*	--
7. MHA State Facilities	--	*4 (2%)*
8. MHA –CMH[2]	--	*3 (2 %)*
Other[1]	3 (3%)	19 (11%)
Total	**88**	**178**

1. *Including vehicle, street, day program, motel, street (hit by car), drowning, etc. Total percentage may not add to 100 due to rounding.*
2. *CMH stands for Community Mental Health*

By breaking down the number and percent distribution of where the DDA and MHA deaths occurred, it was found that, of the 88 DDA cases reviewed in 2007, 61% of deaths were pronounced in the hospital, 25% occurred in residential settings, and approximately 8% in nursing homes. Of the 178 MHA cases reviewed this past year, 34% occurred in residential settings (community-based), while another 44% of deaths were pronounced in a general hospital setting, 3% in hospice facility and 4% occurred in nursing home. 11% of the MHA deaths occurred in other settings including vehicle, street, etc.

Service Type

Table 4 depicted the type of services individuals were receiving prior to death. The DDA services included: family and individual support services (FISS)[4], hospice care, nursing home care, residential services, and vocational and day services. The residential service models include alternative living units (ALU)[5], group homes[6], individual family care homes (IFC)[7], community

[4] FISS may include, but are not limited to, supports involving: (1) Budgeting; (2) Medication administration; Counseling; (4) Job coaching (COMAR 10.22.06.03).
[5] ALU means a residence owned, leased, or operated by a licensee that (a) Provides residential services for individuals who because of a developmental disability, require specialized living arrangement; (b) Admits not more than 3 individuals; and (c) Provides 10 or more hours of supervision per unit, per week (COMAR 10.22.01.01).
[6] Group Home means a residence owned, leased, or operated by a licensee that: (a) Provides residential services for individuals who, because of a developmental disability, require special living arrangements; (b) Admits at least four, but not more than eight individuals; (c) Provides 10 or more hours of supervision, per week (COMAR 10.22.01.01).
[7] IFC means a private, single family residence which provides a home for up to three individuals with developmental disabilities, who are unrelated to the care provider (COMAR 10.22.01.01).

supported living arrangements (CSLA)[8], State Residential Centers (SRC)[9]. Current vocational and day services program models include supported employment, vocational services, day habilitation, and volunteer work. Those who received residential services or FISS may have received vocational and day services at the same time. The MHA cases that were reviewed in 2007 included the deaths of individuals who had received Mental Hygiene Administration (MHA) facilities' residential services and community mental health services.

TABLE 4: TYPE OF SERVICES RECEIVED PRIOR TO DEATH

Type of Services Received Prior to Death	**Percentage 2003 (DD & MH)**	**Percentage 2004 (DD & MH)**	**Percentage 2005 (DD & MH)**	**Percentage 2006 (DD & MH)**	**Percentage 2007 (DD & MH)**
DDA Services	***180 (94%)***	***179 (80%)***	***88 (42%)***	***48 (25%)***	***88 (33%)***
FISS (Family and Individual Support Service)	32 (17 %)	16 (7%)	9 (4%)	10 (5%)	8 (9%)
Hospice Care	21 (11%)	22 (10%)	11 (5%)	7 (4%)	10 (11%)
Nursing Home Care	23 (12%)	13 (6%)	7 (3%)	7 (4%)	6 (7%)
Residential Services:	96 (50%)	102 (46%)	54 (26%)	24 (12%)	51 (58%)
1. ALU	*24*	*50*	*21*	*10*	*36*
2. CSLA	*16*	*11*	*5*	*1*	*7*
3. IFC	*5*	*7*	*1*	*0*	*1*
4. Group Home	*43*	*25*	*17*	*0*	*4*
5. SRC	*8*	*9*	*10*	*11*	*3*
Vocational and Day Services only	8 (4%)	26 (11%)	7 (3%)	2	13 (15%)
MHA Services	***11 (6%)***	***44 (20%)***	***122 (58%)***	***146 (75%)***	***178 67-%)***
MHA Facilities	11	9	15 (7%)	17 (9%)	11 (4%)
Community Mental Health	n/a	35	107 (51%)	129 (66%)	168 (63%)
Total	***191***	***223***	***210***	***194***	***266***

As indicated in Table 4, the total 194 cases reviewed in 2007 consisted of 88 (or 35%) deaths of individuals who had received DDA services and 178 (or 67%) of deaths of individuals who had received MHA services. Of the 88 DDA cases, 58% of the reviewed deaths occurred to individuals receiving community residential services followed by those receiving day program services, hospice care services, FISS services, and nursing home services. Hospice care for individuals with developmental disabilities may be provided at a hospice center, a nursing home, family home or a residential setting. Of the 178 MHA cases, a large percentage of the reviewed deaths occurred in community-based settings, closely followed by general hospital settings. Community-based settings include individuals' residences, hotels, street, vehicle, etc.

Cause of Death

TABLE 5 shows the number and percent distribution of the leading causes of death.

[8] CSLA means services to assist an individual in non-vocational activities necessary to enable that individual to live in the individual's own home, apartment, family home or rental unit with (i) no more than two other non-related recipients of these services; or (ii) members of the same family regardless of their number (COMAR 10.22.01.01).

[9] SRC means a State owned and operated facility for individuals with mental retardation (COMAR 10.22.01.01).

TABLE 5: NUMBER AND PERCENT DISTRIBUTION OF LEADING CAUSES OF DEATHS IN CASES REVIEWED IN 2007

Cause of Death	Number & Percentage (DDA)	Number & Percentage (MHA)
Diseases of the heart	20 (23%)	66 (37%)
Influenza and Pneumonia	19 (22%)	14 (8%)
Malignant Neoplasms	2 (2%)	19 (11%)
Other Diseases of Respiratory System	4 (5%)	4 (2%)
Septicemia	9 (10%)	9 (16%)
Accidents	7 (8%)	29 (16%)
Motor Vehicle Accident	*1*	*2*
Hit by car	*1*	*3*
Nontransport Accident (falls, choking drowning, scalding, etc.)	*5*	*4*
Smoke Inhalation	*0*	*0*
Hypothermia	*0*	*0*
Over Dose	*0*	*20*
Cerebrovascular Disease	6 (7%)	6 (3%)
Epilepsy	5 (6%)	0
Nephritis, Nephritic Syndrome & Nephrosis	3 (3%)	0
Psychotropic drugs, not otherwise classified	0	0
Intentional Self-Harm (Suicide)	1 (1%)	10 (6%)
Assault (Homicide)	1 (1%)	1 (0.5%)

TABLE 6: LEADING CAUSES OF THE DEATHS REVIEWED IN 2007 COMPARED TO THE LEADING CAUSES OF DEATH AMONG ALL MARYLANDERS IN 2006

Rank	Leading Causes of the DDA Deaths reviewed by Committee in 2007[1]	Leading Causes of the MHA Deaths Reviewed by Committee in 2007[2]	Leading Causes of death for all Maryland Residents 2006[3]
1	Disease of the heart	Disease of the heart	Disease of the Heart
2	Influenza and Pneumonia	Accidents	Malignant Neoplasm
3	Septicemia	Malignant Neoplasm	Cerebrovascular diseases
4	Accidents	Influenza & Pneumonia	Chronic Lower Respiratory Diseases
5	Cerebrovascular Diseases	Suicide	Accidents
6	Epilepsy	Septicemia	Diabetes Mellitus
7	Other Diseases of Respiratory System	Cerebrovascular Disease	Influenza and Pneumonia
8	Nephritis, Nephrotic Syndrome, and Nephrosis	Other Diseases of the Respiratory System	Septicemia
9	Malignant Neoplasm	AIDS	Alzheimer's Disease
10	Intentional Self Harm or Assault	Pulmonary embolism (all three are tied)	Nephritis, Nephrotic Syndrome, and Nephrosis

Notes:

1. *The total number of DDA deaths reviewed in 2007 was 88. Deaths may have occurred in 2004, 2005, 2006, and 2007;*
2. *The total number of MHA death cases reviewed in 2007 was 178. Deaths may have occurred in* 2003, 2004, 2005, 2006 and 2007;
3. *Data provided by DHMH Vital Statistics Administration; 2007 data not yet available.*

TABLE 6 compared the causes of death among people with developmental disabilities and mental illness with the cause of death in the general population. Diseases of the heart were the number one cause of death for all Marylanders with malignant neoplasm being the second leading cause of death. For individuals with developmental disabilities, disease of the heart was also the number one cause of death with influenza and pneumonia being the second leading causes followed by septicemia and accidents. Among individuals with mental illness, diseases of the heart were the number one cause of death, with accidents being the second leading cause, followed by malignant neoplasms and influenza and pneumonia.

TABLE 7: CASES REVIEWED WHERE ACCIDENT WAS THE CAUSE OF DEATH (DDA) 2006-2007

TYPE OF ACCIDENT	NUMBER (DDA) 2006	NUMBER (DDA) 2007
Motor Vehicle Accident	0	1
Hit By Vehicle	2	1
Nontransportation Accident	5	5
Falls	*0*	*0*
Choking	*4*	*3*
Drowning	*0*	*0*
Scalding	*0*	*0*
Burns caused by fire	*0*	*1*
Positional Asphyxia (hanging from seat belt in Shower)	*0*	*1*
Over Dose	*1*	*0*
TOTAL	**7 (15%)**	**7 (8%)**

Table 7 compares DDA accidental deaths reviewed in 2006 and 2007. The percentage of accidental death of the total DDA death cases reviewed in 2007 decreased compared to the percent of the accidental death of the total DDA cases reviewed in 2006.

TABLE 8: CASES REVIEWED WHERE ACCIDENT WAS THE CAUSE OF DEATH (MHA) 2006-2007

TYPE OF ACCIDENTS	NUMBER AND PERCENTAGE (MHA) 2006	NUMBER AND PERCENTAGE (MHA) 2007
Motor Vehicle Accident	5	2
Hit By Vehicle		3
Nontransportation Accident including:	21	24
Falls	*2*	*3*
Choking	*2*	*1*
Drowning	*3*	
Scalding		
Smoke Inhalation or burns caused by fire	*1*	*0*
Hypothermia	*1*	*0*
Over dose	*9*	*20*
TOTAL	**26 (18%)**	**29 (16%)**

Table 8 compares the accidental deaths reviewed in 2007 and 2006. The percentage of accidental deaths of all the MHA death cases reviewed in 2007 decreased to 16% from 18% in 2006.

TABLE 9: CASES REVIEWED WHERE IINTENTIONAL SELF-HARM (SUICIDE) WAS THE CAUSE OF DEATH (DDA) 2006-2007

SUICIDE METHOD	NUMBER AND PERCENAGE (DDA) 2006	NUMBER AND PERCENTAGE (DDA) 2007

Drug Overdose (intentional self harm)	0	0
Alcohol Overdose	0	0
Poly Substance Intoxication[1]	0	0
Hanging	0	0
Asphyxiation	0	0
Jumping[2]	0	1
Gun Shot	0	0
TOTAL	**0 (0%)**	**1 (1%)**

1. Combination of drug and alcohol intoxication
2. Jumping from bridges, roof tops, etc.

Table 9 records the suicidal death reviewed in 2006 and 2007. There were zero (0) incident of suicidal death reviewed in 2006. One (1) DDA suicide death was reviewed in 2007.

TABLE 10: CASES REVIEWED WHERE INTENTIONAL SELF-HARM (SUICIDE) WAS THE CAUSE OF DEATH (MHA) 2006-2007

SUICIDE METHOD	NUMBER AND PERCENTAGE (MHA) 2006	NUMBER AND PERCENTAGE (MHA) 2007
Drug Overdose (intentional self harm)	7	4
Alcohol Overdose	0	0
Poly Substance Intoxication[1]	0	0
Hanging	7	3
Asphyxiation	1	0
Jumping[2]	2	2
Gun Shot	5	1
TOTAL	**22 (15%)**	**10 (6%)**

1. Combination of drug and alcohol intoxication
2. Jumping from bridges, roof tops, etc.

TABLE 10 compares cases reviewed where the cause of death was intentional self-harm (suicide). The tables break down the suicide by method used. Of the MHA cases reviewed in 2007, suicide deaths decreased to 6% from 15% in 2006.

Do Not Resuscitate (DNR)

Approximately 63 (32%) individuals had Do Not Resuscitate (DNR) orders at the time of death. Many of the deaths were due to medical complexity and/or terminal conditions such as advanced stage cancer.

TABLE 11: DO NOT RESUSCITATE (DNR)

DNR Authorized by:	2007 (DDA)	2007 (MHA)
Self	1	7
Family/Guardian	21	16
Court	2	0
Surrogate Decision Maker	0	0
Power of Attorney	0	0
Hospice	0	0
Physician	4	2
Unknown	0	1
Total	**26**	**10**

Medication and Dosage

Of the 266 cases reviewed in 2007, 235 (66 DDA individuals and 169 MHA individuals) or approximately 88% of the individuals had received central nervous system (CNS) active medications during the month prior to death. TABLE 9 illustrated the number and percentage of individuals who had received medications from each identified agent class. Individuals may have received medication(s) from more than one class. The table shows that of the 66 individuals with Developmental Disabilities who were on CNS medications, 65% of the individuals were on anticonvulsant, 52% of the individuals were on antipsychotic and 44% of the individuals were on antidepressant. Of the 178 individuals with mental illness, 169 were on CNS medications: 71% were on antipsychotics, 62% were on antidepressants, and 36% were on anticonvulsants.

TABLE 12: COMPARISON OF NUMBER AND PERCENTAGE OF DDA AND MHA INDIVIDUALS RECEIVING MEDICATIONS FROM EACH CLASS

Agent Class	Number & Percentage (DDA) 2007	Number & Percentage (MHA) 2007
Anticholinergic Agent	8 (12%)	22 (12%)
Anticonvulsant	43 (65%)	64 (36%)
Antidepressant	29 (44%)	111 (62%)
Antipsychotic	34 (52%)	127 (71%)
Anxiolytics	6 (9%)	57 (32%)
Cholinesterase Inhibitor	0	0
Hypnotics	12 (18%)	28 (16%)
Narcotics	3 (5%)	16 (9%)
Stimulant	1 (1%)	2 (1%)

TABLE 13: COMPARISON OF NUMBER AND PERCENT DISTRIBUTION OF DDA AND MHA INDIVIDUALS RECEIVING MEDICATION(S) FROM THE SAME CLASS

Individuals	Number and Percent Distribution DDA 2007	Number and Percent Distribution MHA 2007
Individuals Using 1 Agent From The Same Class	37 (56%)	156 (89%)
Individuals Using 2 Agents From The Same Class	19 (29%)	68 (38%)
Individuals Using 3 Agents From The Same Class	6 (9%)	16 (9%)
Individuals Using 4 + Agents From The Same Class	4 (6%)	1 (0.5%)
Total Number of Individuals Receiving Medications	**66 (100%)**	169 (100%)

Table 13 describe the number and percent distribution of individuals who had been on one or more different central nervous system (CNS) active medications.

TABLE 14: COMPARISON OF NUMBER AND PERCENT DISTRIBUTION OF DDA AND MHA INDIVIDUALS ON CENTRAL NERVOUS SYSTEM (CNS) ACTIVE MEDICATIONS IN CASES REVIEWED IN 2007

Individuals	Number and Percent Distribution (DDA)	Number and Percent Distribution (MHA)
Individuals on only 1 CNS active medication	13 (20%)	25 (14%)

Individuals on 2 CNS active medications	19 (29%)	35 (20%)
Individuals on 3 CNS active medications	14 (21%)	37 (21%)
Individuals on 4 CNS active medications	9 (14%)	33 (18%)
Individuals on 5 CNS active medications	6 (9%)	19 (11%)
Individuals on 6 CNS active medications	4 (6%)	12 (7%)
Individuals on 7 or more CNS active medications	1 (1%)	8 (4%)
Total Number of Individuals on CNS medications	**66 (100%)**	**169 (100%)**

TABLE 15 NUMBER OF CASES REFERRED BY MORTALITY REVIEW COMMITTTEE TO OTHER AGENCIES FOR FURTHER EVALUATION (2007)

Agencies	Number and Percent of Cases (DDA)	Number and Percent of Cases (MHA)
Assisted Living Unit	0	0
Board of Nursing	3	0
Board of Pharmacists	0	0
Board of Physicians	0	0
DDA	0	0
Hospital Unit	7	1 (0.5%)
Licensing Unit	0	0
Long Term Care Unit	1	0
MHA	0	5 (3%)
Nursing Home Unit	1	0
State Attorney's Office	0	0
Total	**12 (14%)**	**6 (3.5%)**

Table 12 listed the number of cases that were referred to the different licensing board and agencies/unit or State Attorney's office for further investigation, due to concerns of quality of care provided to the individuals.

V. FINDINGS, DISCUSSION AND RECOMMENDATIONS

This report provides data and information that can support the State of Maryland in enhancing services for people with disabilities. Through the comparison of long-term data this report shows how factors contributing to deaths change from year to year and therefore leads to new recommendations for improvement each year.

The Committee represents both the developmental disabilities and the mental health communities, because of the myriad of members' backgrounds, excellent discussion and recommendations come forth. The OHCQ investigators work hard to anticipate what the Committee will ask about as well as follow up until the Committee is completely satisfied with an outcome.

In addition to developing recommendations based on factors contributing to death, this year's report also includes recommendations from a review of quarterly aggregate data from OHCQ on select reportable incidences self reported from DDA providers. During 2007, a sub-committee was formed to compile the quarterly aggregate data and place it into a useful format that would show systemic issues. The sub-committee still considers this work immature in that it only uses 18 months of data.

The following recommendations are based on the findings of this report and concerns of the Committee:

1. The Workgroup on Choking was established this year and included representatives as follows: DDA Statewide Training Coordinator; OHCQ Nurse Surveyors; DDA Regional Nurse; behavioral Psychologists; MRC members; Registered Nurse; Speech Pathologist and Occupational Therapist. The Workgroup met twice to develop the following recommendations.
    a. The workgroup feels that many choking incidents are preceded by red flag indicators, which should be evaluated further. Direct Support Staff are the front line workers who are likely to see these choking red flag indicators, which if identified can support further testing and possible diet changes for a consumer. *Recommendation: An evaluation tool, red flag indicator list and flowchart that can be used by Certified Medication Technicians, Unlicensed Assistive Person/Certified Nursing Assistants who work in Direct Support Staff positions with DDA Community provider agencies have been developed and are attached*.
    b. One of the challenges identified by the Workgroup was that each provider agency can have different ideas on what food preparations for individuals with choking hazards might look like. Sometimes even each house might have a variety of definitions on how to prepare foods when a consumer is on a restricted diet. *Recommendation: Food definitions that could be adopted by DDA and used as a standard for all DDA Providers were developed and are attached. A second recommendation is to design posters that show pictures of how properly prepared food should look. This would be helpful to Direct Support Staff who are responsible for food preparations*.
    c. It was clear to the Workgroup that a required training around swallowing issues needs to be established by DDA. *Recommendation: A training that addresses how to use the evaluation tool and flowchart, diet preparation as well as ways to improve the environmental surrounding for people with food related behavior issues should be developed.*
    d. It was brought to the attention of the Workgroup that many provider agencies do not know where to turn for swallowing evaluations. *Recommendation: Compile a statewide list of Medical Professionals, SLP, OT and others who are qualified to complete the swallowing evaluations who accept Medicaid and/or Medicare*.
    e. Recommendation: All changes made by the medical professionals about food preparation must be included in the Diet and Care Plan that will be reviewed on 45-day nursing reviews.

    Many of the recommendations on Choking Prevention and Identification will take changes in DDA Policy. The MRC strongly advocates that these recommendations be acted on immediately to prevent further illness and death that occurs related to choking.

2. a) During 2007, the Committee reviewed many cases that involved individuals receiving DDA services that were discharged from a hospital to their home. The DDA delegating nurse did not evaluate them in a timely manner, which leads to inadequate post-hospitalization care. It was reported to the Committee by OHCQ that the regulations do not stipulate a time frame for a comprehensive assessment by the agency's delegating nurse following hospitalization or Emergency Room visits. Rather it is the Board of Nursing's stance that common sense should rule and a delegating nurse should utilize his/her prudent judgment in determining the urgency and parameters of a post-hospitalization assessment. OHCQ further stated that an outside time limit of 72 hours was generally what surveyors looked for, but the needs of the individual would be the final determining factor. Per the Medication Technician Training Program (MTTP), the curriculum utilized by all DDA-licensed facilities, it is the responsibility of the delegating nurse for each agency (in collaboration with the agency's administration) to develop numerous policies and procedures, including participation in discharge planning for individuals and post-hospitalization review and assessment.
   Recommendation: To ensure the safety and well being of individuals served by DDA, the agency delegating nurse should reassess the individual and update the nursing care plan prior to discharge or within 24 hours after discharge. For this to occur, a change in the Delegating of Nursing Functions in the Nursing Board Regulations would be needed.

   b) Medication reconciliation is done to avoid medication errors such as omissions, duplications, dosing errors, or drug interactions. It is exceptionally important when dosage changes are made in medications that have a great potential to be lethal at higher doses. The committee reviewed several cases where the cause of death was attributable to the use or change of medications, specifically warfarin, after discharge from an in-patient hospital stay.
   The committee recommends stronger regulations requiring medication reconciliation to be done by either a pharmacist or physician within 48 hours of a patient being discharged from a hospital back to their place of residence.

3. By design this Committee works closely with the OHCQ Mortality Investigation Unit Health Facility Nurse Surveyors and their investigations are invaluable to the Committee's work. For the past 4 years there have been three nurse surveyors assigned to the unit to work consistently on deaths of individuals receiving services funded by either the Developmental Disabilities Administration (DDA) or the Mental Health Administration (MHA). The Unit currently has a backlog of 698 cases.
   Approximately 35 deaths are reported to this unit monthly and an average of 25 cases are closed monthly. To be fully staffed and able to conduct quality investigations of the circumstances surrounding the deaths of these vulnerable individuals, 5 nurse surveyors are actually needed. The DD Unit at OHCQ is unable to transfer additional resources to the Mortality Investigation Unit as the DD Unit as a whole is operating in a deficit status. Staffing analyses conducted by the OHCQ for the past several years and an analysis conducted by an outside

consultant this past summer have indicated a deficit of 25 positions based on the growth of community programs and the regulatory and monitoring activity required by OHCQ to ensure health and safety of the individuals served in the community. The proposed FY09 budget for OHCQ, in recognition of this need, has allocated an additional 5 surveyor positions to the DD Unit.
Recommendation: DHMH should strive to increase the budget for the OHCQ DD Unit and raise the number of nurse surveyors within the Mortality Investigation Unit to 5.

VI. APPENDIX

MORTALITY REVIEW COMMITTEE MEMBERS

Committee Chair:

• Sarah Sorensen - Assistant Director of The Arc of Maryland

Committee Members:

• Zabiullah Ali, MD – Assistant Medical Examiner - Chief Medical Examiner's Office

• Doug Boggs, Pharm D. – University of Maryland

• Barrett Cisney – Chief of Evaluations and Compliance services - Mosaic Community Services, Inc.

▪ Lisa Cuozzo, J.D. – Director of Public Policy - Mental Health Association of Maryland

• Barbara DiPietro – Special Assistant the Deputy Director of Public Health-DHMH

▪ Tom Hicks – Self Advocate

▪Marcy Hyatt – Service Coordination

▪ Wendy Kronmiller, Esq., Director of Office of Health Care Quality – DHMH

▪ Miriam Levy – Mental Health Specialist

▪ Joyce Lipman – Family member representative

▪ Vicki Mills – Self Advocate

• Evan Mortimer, MD, Medical Director of Family Planning and Reproductive Health – DHMH

• Roger Peele, MD, Psychiatrist – Montgomery County

• Keith R. Peterson, Executive Director – Penn Mar Organization, Inc.

• Joan Rumenap, MBA, Director of Special Projects – Abilities Network

▪ Phyllis Zolotorrow – Family member representative

Committee Counsel:

• Kathleen A. Ellis, Deputy Counsel, Assistant Attorney General, Office of the Attorney General-DHMH