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2010 Annual Mortality Report

June 2011

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MORTALITY REVIEWS BECOME STANDARD PRACTICE IN THE OFFICE OF AGING AND ADULT SERVICES

The primary purpose of the Mortality Review Committee in the Office of Aging and Adult Services (OAAS) is to monitor and analyze deaths of OAAS waiver participants, and to identify issues and concerns that may have compromised the health care or services provided to individuals by OAAS providers. During state fiscal year 2010 OAAS organized a preliminary committee who reviewed the 2009 mortality data and defined the purpose, composition and protocols for the future of the Mortality Review Committee.

Acknowledgements

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The 2010 analysis found that mortality increases with age regardless of living arrangement or long term care service choice. Findings also showed mortality differs based on service setting and individual long term care program. For instance, mortality rates in nursing homes are higher than waiver programs among every age group.

Variation in mortality rates is found across administrative regions of the state. The Lake Charles area (Region 5) had the highest mortality rates for the home and community based programs while central Louisiana (Region 6) and the North Shore area (Region 9) had lower rates of mortality. Further research is needed in order to understand the root cause of the differences.

Heart disease and cancer are the two leading causes of death across all of the United States and within each subgroup defined in the report (Louisiana, Home and Community Based Programs, and Nursing Homes). Diabetes ranks third at 6.7% of deaths for Home and Community Based Services (HCBS) participants compared to 7th nationally. Alzheimer's disease and Dementia related deaths combined make up over 14% of deaths in nursing homes. Nationally Alzheimer's disease ranks 6th among leading causes of death compared to 3rd in nursing homes. These findings highlight the unique health challenges for those receiving long term care services.

INTRODUCTION

The Office of Aging and Adult Services (OAAS) administers Medicaid home and community-based service (HCBS) programs for aging adults and persons with adult-onset disabilities. These include the Elderly and Disabled Adults (EDA) waiver, Adult Day Health Care (ADHC) waiver, Long Term Personal Care Services (LTPCS) Program and the Program for All-Inclusive Care for the Elderly (PACE). This is the second report published by the Department on mortality in Medicaid HCBS programs serving the aged and persons with adult-onset disabilities. The initial report was released in April 2010 and analyzed deaths between January 1, 2009 and June 30, 2009. This represented a major effort to improve the quality of Medicaid-funded supports and services for older people who are living in Louisiana's communities. This report will present data for dates between July 1, 2009 and June 30, 2010, or state fiscal year 2010.

OAAS DEFINES THE MORTALITY REVIEW COMMITTEE'S PURPOSE, COMPOSITION, AND PROTOCOL

During state fiscal year 2010, OAAS organized a preliminary committee who reviewed the state fiscal year 2009 data and developed a Mortality Review Committee Protocol. It was determined that the committee is to meet every six months. The Mortality Review Committee is comprised of OAAS Quality Management staff and representatives from the Medicaid Health Standards Section, Adult Protective Services, Elderly Protective Services, and OAAS regional offices. Additional expertise (for instance, physicians, representatives of attorney general's office, pharmacists, etc) may be sought for participation on this body when needed.

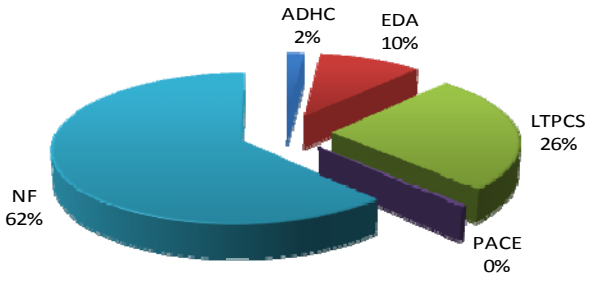
The primary purpose of the OAAS Mortality Review Committee is to monitor and analyze deaths of OAAS waiver participants. Overall, the mortality review process is designed to identify issues and concerns that may have compromised the health care or services provided to individuals by OAAS providers. Specifically, the mortality review process is designed to: (1) identify remediation activities associated with provider individual cases; (2) generate recommendations for system level Quality Improvement; and (3) reduce future risk.

METHODOLOGY

Multiple data sources were required to produce this report; the primary source was Medicaid administrative claims and eligibility records. All individuals enrolled in the OAAS programs during state fiscal year 2010 were identified. If they moved between programs within the year the last program of enrollment was used for reporting purposes. The administrative data was matched with vital records to identify deaths and collect information regarding the cause of death. The Department of Health and Hospitals also manages a critical incident reporting database that tracks deaths as well as other critical incidents involving HCBS waiver participants. Information from this database was analyzed to assess any trends in co-occurring events prior to death. The HCBS mortality rates were compared to that of the US, Louisiana, and nursing home services when possible.

POPULATION SERVED

During state fiscal year 2010 the OAAS/Medicaid long term supports and services system provided services to 45,261 participants. This includes services provided in nursing facilities, the EDA waiver, the ADHC waiver, LTPCS, and the PACE program. Combined, the HCBS programs provide services to 36% of the participants.



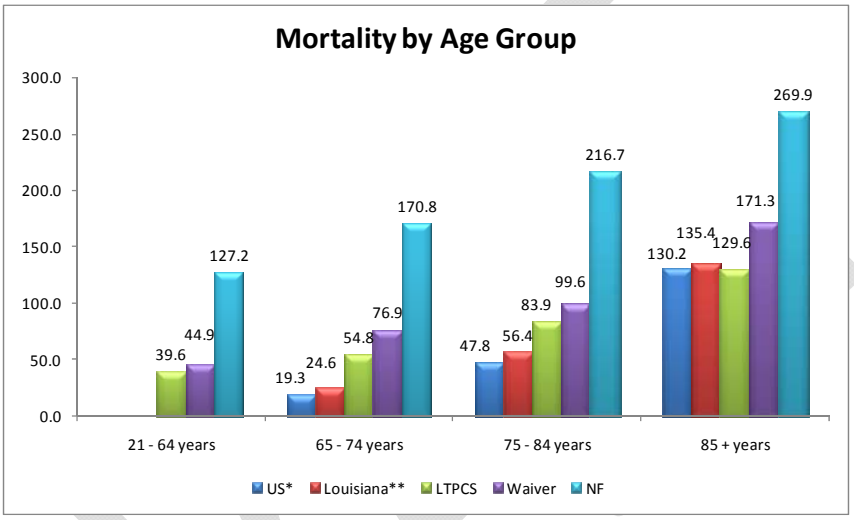
The table below provides a general overview of the OAAS services population. The average age of a Medicaid resident in a nursing home is 76.4 years old while the average age of an HCBS participant is 66.5 years. This does vary among HCBS programs. The youngest group is the LTPCS state plan program (63.2) and the oldest group is the PACE program (79.3). The majority (> 70%) of participants in HCBS programs are female. Mortality rates vary greatly among programs, from 61.0 per 1,000 in LTPCS up to 209.5 per 1,000 in nursing facilities. This variation will be explored further in the report.

OAAS Client Characteristics FY-10						
	ADHC	**EDA**	**LTPCS**	**PACE**	**NF**	**HCBS Overall**
Total Recipients	766	4,604	11,619	221	28,051	17,210
Mean Age	72.9	73.0	63.2	79.3	76.4	66.5
Gender						
Male	30.5%	27.1%	24.4%	23.1%	36.1%	25.4%
Female	69.5%	72.9%	75.6%	76.9%	63.9%	74.6%
Deaths	66	526	709	14	5876	1315
Mortality Rate (per 1,000)	86.2	114.2	61.0	63.3	209.5	76.4
Age Groups						
21 - 64	25.6%	27.2%	51.9%	11.8%	20.0%	43.6%
65 - 74	21.0%	15.4%	19.0%	18.6%	17.5%	18.1%
75 - 84	28.2%	28.5%	16.6%	30.8%	27.3%	20.5%
85 and over	25.2%	28.9%	12.4%	38.9%	35.2%	17.7%
Race						
White	17.4%	34.7%	15.4%	21.3%	56.9%	20.7%
Black	69.2%	55.8%	74.9%	69.7%	29.3%	69.5%
Other	13.4%	9.5%	9.7%	9.0%	13.8%	9.8%
Region						
1	20.4%	7.9%	11.9%	54.3%	11.9%	11.7%
2	26.6%	13.6%	14.4%	45.7%	12.5%	15.1%
3	0.5%	6.5%	4.3%		7.0%	4.6%
4	26.8%	16.6%	22.8%		14.9%	21.0%
5	3.4%	5.7%	3.3%		6.9%	3.9%
6	1.7%	12.1%	8.2%		10.0%	8.8%
7	9.7%	9.6%	11.5%		17.2%	10.8%
8	2.6%	15.0%	15.6%		11.3%	14.7%
9	8.4%	12.9%	8.2%		8.3%	9.4%

ANALYSIS OF MORTALITY IN LOUISIANA LONG TERM SUPPORTS AND SERVICES

MORTALITY INCREASES WITH AGE

Mortality rates increase as individuals get older. This can be seen in the state and national statistics as well as the Medicaid services results. The chart below displays the mortality rates by age group for general US population[1], Louisiana[2], the LTPCS program, the EDA and ADHC waivers combined and Medicaid nursing facility residents. In each age group the statistics follow a similar pattern, US population has the lowest mortality rate and nursing facility residents has the highest.



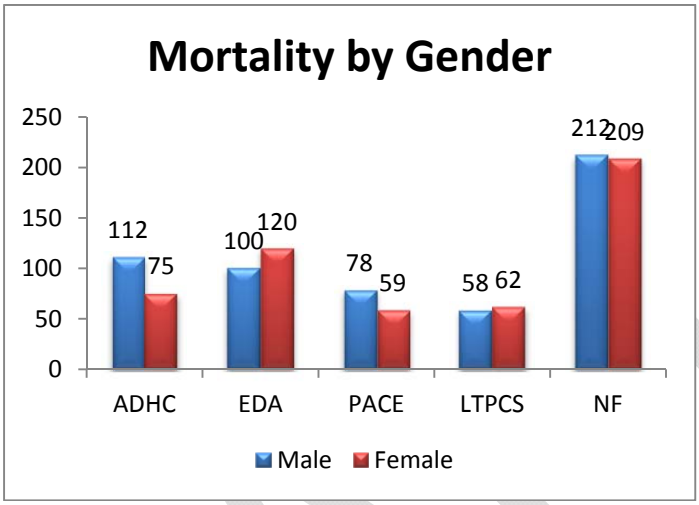
Age Group	US*	Louisiana**	LTPCS	Waiver	NF
21 - 64 years			39.6	44.9	127.2
65 - 74 years	19.3	24.6	54.8	76.9	170.8
75 - 84 years	47.8	56.4	83.9	99.6	216.7
85 + years	130.2	135.4	129.6	171.3	269.9
** 2009 data*	*** 2007 data*				
Rates per 1000 population in specified group					

The mean age at death for individuals participating in the HCBS programs was 76.0 years (median age = 79.4). For the US, life expectancy in 2009 was 78.2 years up from 78.0 years in 2008[1]. Life expectancy is a summary measure of the overall health of a population. In the United States, improvements in health have resulted in increased life expectancy and contributed to the growth of the older population over the past century[3].

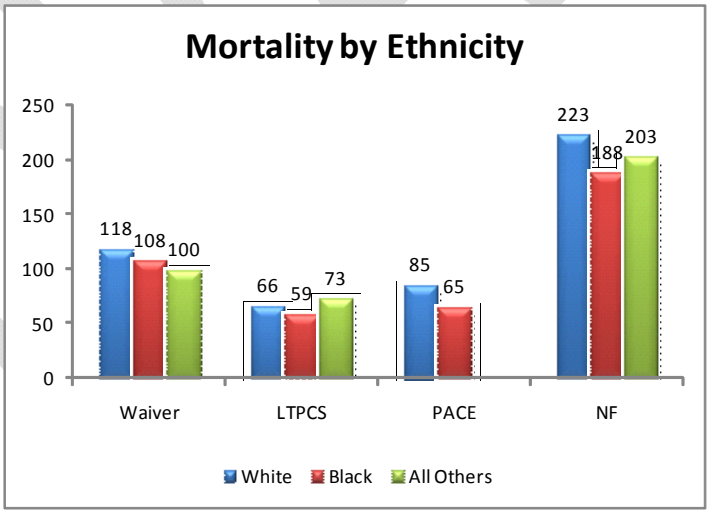
[1] Kochanek KD, Xu JQ, Murphy SL, Miniño AM, Kung HC. Deaths: Preliminary Data for 2009. National Vital Statistics Reports; vol 59 no 4. Hyattsville, MD: National Center for Health Statistics. 2011.
[2] http://www.dhh.louisiana.gov/offices/publications/pubs-275/DHHHlthCreRprtCrd_2009.pdf
[3] http://www.agingstats.gov/agingstatsdotnet/Main_Site/Data/2010_Documents/Docs/OA_2010.pdf

MORTALITY BY GENDER AND RACE

For the US, the age-adjusted death rate for females in 2009 was 7.8 per 1,000 and 8.0 for males. The crude death rates by gender are presented below for each program. Nationally there is little difference in the mortality rates by gender; this is consistent in both LTPCS and Nursing Facility populations, but varies among ADHC, EDA, and PACE. This variation could be due to the smaller size of these programs or the age-gender composition within the program itself.



Age-adjusted death rate for whites in the US for 2009 was 7.3 per 1,000, and 9.2 for African-Americans. The crude death rates by race are presented below for each program.

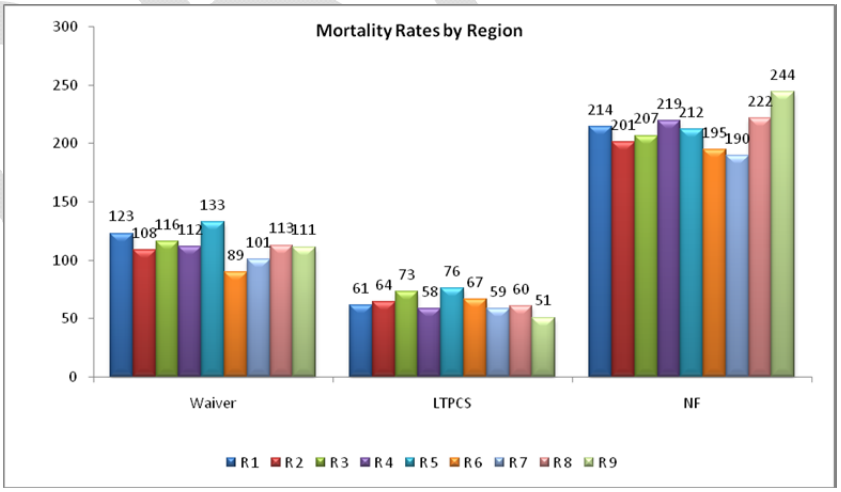


REGIONAL VARIANCE IN MORTALITY WARRANTS FURTHER ANALYSIS

Mortality rates do vary across the different regions of the state. However, there is not a consistent trend across programs. For example, the lowest mortality rate among the waiver participants was in region 6 (89.5 per 1,000) but in the LTPCS program region 9 had the lowest rate (50.6 per 1,000). Region 5 had the highest mortality among both waiver (132.9) and LTPCS (75.9) programs. Differences across regions could be due to differences in age distributions or other unmeasured factors such as access to preventive or emergency care.

WAIVER									
Region	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Population	521	830	302	966	286	570	517	710	656
Percent of Population	9.7%	15.5%	5.6%	18.0%	5.3%	10.6%	9.6%	13.3%	12.2%
Number of Deaths	64	90	35	108	38	51	52	80	73
Percent of Deaths	10.8%	15.2%	5.9%	18.3%	6.4%	8.6%	8.8%	13.5%	12.4%
Mortality Rate	122.8	108.4	115.9	111.8	132.9	89.5	100.6	112.7	111.3

LTPCS									
Region	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Population	1,372	1,662	493	2,634	382	947	1,333	1,805	949
Percent of Population	11.9%	14.4%	4.3%	22.8%	3.3%	8.2%	11.5%	15.6%	8.2%
Number of Deaths	84	107	36	154	29	63	78	109	48
Percent of Deaths	11.9%	15.1%	5.1%	21.8%	4.1%	8.9%	11.0%	15.4%	6.8%
Mortality Rate	61.2	64.4	73.0	58.5	75.9	66.5	58.5	60.4	50.6



DHH Regions

Region 1 – Greater New Orleans
Region 2 – Greater Baton Rouge
Region 3 – Southeastern Coastal/Bayou
Region 4 – Greater Lafayette
Region 5 – Southwestern Coastal/Lake Charles
Region 6 – Central Louisiana
Region 7 – Northwestern Louisiana/Shreveport
Region 8 – Northeastern Louisiana/Monroe
Region 9 – North Shore

HEART DISEASE IS THE LEADING CAUSE OF DEATH IN THE UNITED STATES, LOUISIANA, AND OAAS PROGRAMS

The leading causes of death for the US and Louisiana are shown below next to the leading causes of death in OAAS HCBS programs and Medicaid funded nursing facility residents. All deaths of individuals who were served between July 1, 2009 and June 30, 2010 were considered for analysis. Cause of death was available on 92% of deaths identified.

For the US and all three sub-groups heart disease and cancer are the two leading causes of death. The rankings for respiratory disease, stroke and accidents among the US and Louisiana are slightly different in order, but when looking at the percentages of all deaths these three rank very closely. Between 4% and 6% of deaths are attributed to each of these three causes. For the HCBS population diabetes is ranked number 3, followed by stroke and nephritis (or kidney disease). In nursing facilities, Alzheimer's disease and other dementia are ranked 3rd and 4th followed by stroke and respiratory diseases.

Beyond heart disease and cancer the causes of death do vary among HCBS, nursing home and the general population. There appears to be a larger problem with uncontrolled diabetes among HCBS participants and greater prevalence of Alzheimer's disease and other dementia among nursing home residents.

Rank	United States (2009)[1]	Louisiana (2007)[2]	HCBS (2010)	Nursing Facility (2010)
1	Heart Disease 24.6%	Heart Disease 25%	Heart Disease 27%	Heart Disease 25.2%
2	Cancer 23.3%	Cancer 22%	Cancer 15.6%	Cancer 9.7%
3	Respiratory Disease 5.6%	Accidents 6%	Diabetes 6.7%	Alzheimer's Disease 7.9%
4	Stroke 5.3%	Stroke 5%	Stroke 5.7%	Dementia 7.4%
5	Accidents 4.8%	Respiratory Disease 4%	Kidney Disease 5.1%	Stroke 6.5%
6	Alzheimer's Disease 3.2%	Diabetes n/a	Respiratory Disease 4.5%	Respiratory Disease 6.0%
7	Diabetes 2.8%	Alzheimer's Disease n/a	Influenza & Pneumonia 3.3%	Influenza & Pneumonia 4.5%
8	Influenza & Pneumonia 2.2%	Kidney Disease n/a	Alzheimer's Disease 3.1%	Kidney Disease 4.1%
9	Kidney Disease 2.0%	Influenza & Pneumonia n/a	Dementia 2.7%	Diabetes 3.9%
10	Intentional Self-harm 1.5%	Septicemia n/a	Septicemia 2.5%	Septicemia 3.0%

ANALYSIS OF CRITICAL INCIDENTS AND MORTALITY

When a waiver participant has a critical incident occur, such as a major illness or a fall, the direct service worker or support coordinator is required to report the event. DHH manages a central database to store each of these critical incident reports. OAAS analyzed critical incident reports submitted from around the state in an effort to examine the issue of risk.

When looking at all critical incidents reported on OAAS waiver participants there were 575 clients who experienced a fall during fiscal year 2010. Of these, 2% were correlated with a death within 90 days of the event. Similarly, when looking at injuries correlated with deaths within 90 days, 4% of those with a major injury had an outcome of death within 90 days of the critical incident.

There were 472 OAAS waiver deaths identified in the CIR database for fiscal year 2010, of these 8% had a fall within 90 days prior to death and 3% had a major injury incident within 90 days prior to death. This information is important for tracking on an annual basis to monitor for any change in program trends.

Incident Category	# of Incidents	Percentage of Deaths
Total Deaths Reported in OTIS	472	--
Total Falls (w/in 90 days of death)	36	8%
Total Major Injury (w/in 90 days of death)	12	3%

CONCLUSIONS AND NEXT STEPS

In conclusion, trends in mortality among the Medicaid long term supports and services recipients appear to be in line with that of general US and Louisiana population. Rates of mortality are higher among older age groups and within more specialized services such as nursing home and waivers. The top two causes of death, heart disease and cancer are consistent across the US, Louisiana and each of the OAAS program subgroups. There were differences in the third leading cause of death between HCBS participants and nursing home residents. Diabetes appeared third among causes of death for HCBS participants while Alzheimer's disease was third for nursing home residents. At the national level, respiratory disease ranks as the third leading cause of death.

Looking forward to the new fiscal year the OAAS Mortality Review Committee will meet every six months to review individual cases referred to the committee, pursue corrective action as needed, review aggregate data to identify trends in statewide, regional or provider-level performance, and recommend system level quality improvement as identified.

APPENDIX

DEFINITIONS

Adult Day Health Care Waiver (ADHC): The ADHC waiver provides support coordination and day services at an ADHC center. Services provided by the centers include but are not necessarily limited to: assistance with activities of daily living, health and nutrition counseling, health education classes, a hot meal and two snacks, social services, transportation to and from the facility, health and nursing services, and exercise programs.

Elderly and Disabled Adults Waiver (EDA): The EDA waiver provides an array of services for recipients in their homes. Services include: support coordination, transition services for those moving out of an institution into the community, personal emergency response system installation and monitoring, home accessibility modifications, and personal assistance services which include assistance with activities of daily living such as bathing, dressing, and grooming.

Critical Incident Report (CIR): A critical incidents are those involving abuse, neglect, exploitation, extortion, major injury, falls, and major medication incidents. The purpose of the critical incident reporting policy is to establish uniformity and consistency in reporting and responding to critical incidents and ensuring the health, safety, and welfare of elderly and disabled adults. Death is a distinct category of critical incident and must be reported for waiver recipients.

Long Term Personal Care Services (LT-PCS): LT-PCS provides assistance with activities of daily living such as dressing, bathing, toileting, etc. and other activities such as meal preparation, shopping, and help with medical appointments to those who qualify. Most persons receiving ADHC waiver services also receive LT-PCS.

Program for All-Inclusive Care for the Elderly (PACE): PACE operates like a managed care organization where the provider coordinates and provides all needed preventative, primary, acute and long term care services so that older individuals can continue living in the community. This is a relatively new program in Louisiana and currently available in only two regions of the state, the Baton Rouge and New Orleans metro areas.