An Analysis of Elder Abuse Rates in Milwaukee County

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ABSTRACT

Introduction: The elder abuse and neglect burden in Milwaukee County, Wisconsin, is substantial, with 3384 reports made from 2006 to 2009. Current prevalence estimates are determined from reported cases only and are likely underestimated. Provider awareness of victim and perpetrator characteristics is necessary to increase recognition and response.

Methods: A cross-sectional analysis of elder abuse and neglect cases reported to the Milwaukee County Department on Aging (MCDA) from 2006 to 2009 was performed to provide a profile of the county's elder abuse burden by victim, perpetrator, and reporter characteristics. Annual reporting trends were identified using Poisson regression analysis.

Results: Fifty-eight percent of MCDA reports of abuse were substantiated after investigation. Victims in Milwaukee County tended to be older than 75 (64%), female (64%), and white (62%). Reporting rates to the MCDA were significantly lower in 2009 than 2006. Perpetrators were often adult children (48%) or a spouse (14%). Forty percent of life-threatening cases of self-neglect were due to unfulfilled medical needs. Most reports were made by medical professionals (23%), relatives of the victim (21%), and community agencies (18%). Only 13% of elder abuse victims were placed in nursing homes and assisted living centers; many received services to assist independent living.

Discussion: Although this study is limited to reported cases only, it provides a valuable profile of pertinent elder abuse characteristics in Milwaukee County.

Conclusion: Characteristics of vulnerable elders, potential abusers, and investigation outcomes are described to inform clinical practice about this important social issue.

BACKGROUND

In the United States, reports of elder abuse and neglect indicate that approximately 1 million to 2 million Americans aged 65 and older are affected, with national prevalence assessments ranging from 2% to 10%.[1,2] Current prevalence values are determined from reported cases only and are likely grossly underestimated due to under-recognition in the community; it is estimated that for each case reported to adult protective service agencies, 5 more cases go unreported.[3] Research has shown that elders are unlikely to report experiencing abuse due to victim shame, abuser intimidation, and fear of institutionalization.[4] This is further complicated by the fact that the abuser may be a loved one or a dependent child. Health care providers also may lose access to a vulnerable elder, either by abuser intent or the elder's autonomous decision to forgo seeking medical care. Even when reporting elder abuse is mandatory, physicians and other medical professionals often lack the time and training necessary to recognize the signs of abuse and neglect. The purpose of this article is to gain a deeper understanding of the victim and perpetrator characteristics associated with elder abuse so that such information can be used to inform clinical practice.

The medical literature defines several risk factors for elder abuse and neglect, which are depicted in Figure 1.[5] Cognitive impairment, depression, behavioral problems, caregiver burden or stress, poverty, poor social network, and living with others have relatively strong associations with elder abuse risk in the literature. Other risk factors identified, such as age, gender, and functional impairment, have been shown to have inconsistent associations or are limited to expert opinion only.

Reporting laws for elder abuse differ state by state; Wisconsin relies largely on voluntary reporting. However, certain groups, including physicians and other health professionals, are required to report suspected abuse if an elder treated in the course of his or her professional duties requests a report be filed. Reporting is also mandatory if the physician determines that (1) the elder is either at immediate risk of serious harm (eg, bodily harm, death, sexual assault, significant property loss) and is unable to make an informed judgment about reporting, or (2) another elder is at imminent risk of serious harm by the

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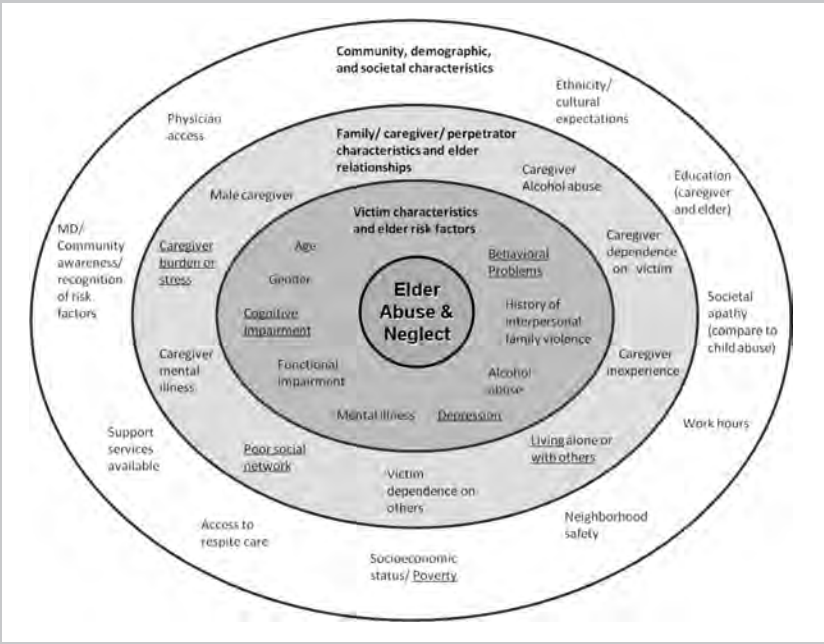

Figure 1. Socioeconomic model of risk factors for elder abuse and neglect.
Note: Underlined risk factors signify consistent or relatively strong associations in the medical literature. All other terms are described in the medical literature, but studies are inconsistent in demonstrating the association, or limited to expert opinion only.

Table 1. Milwaukee County Department on Aging Primary Categories of Adult-at-Risk Abuse, Neglect, and/or Exploitation

Physical abuse	Any willful infliction of physical harm including shaking, shoving, hitting, and kicking
Emotional abuse	Verbal abuse, threats, isolation from family and friends, silent treatment
Financial exploitation	Misuse of money or possessions, forced or tricked signing of legal documents (eg, Power of Attorney, will)
Sexual abuse	Inappropriate touching, forced sexual acts
Neglect by others	Refusal to provide food, water, clothing, shelter, personal hygiene, or medication
Self-neglect	Refusal or inability to provide food, water, clothing, shelter, personal hygiene, or medication for one's self
Unreasonable confinement or restraint	Tying or locking a person up
Treatment without consent	Failure to obtain informed consent before administering medical care

suspected perpetrator.[6] An exception to the mandatory reporting requirement is made if the physician does not believe it is in the best interest of the elder at risk to file a report. In this situation, the physician must document the reason for his or her belief in the elder's medical record.

In Wisconsin, 5316 cases of abuse or neglect were reported in 2009. Milwaukee County was the source of 15% of those reports, with 790 cases of elder abuse referred to the Milwaukee County Department on Aging (MCDA). MCDA is the lead agency for receiving and responding to reports of elder abuse and neglect in Milwaukee County. MCDA defines 8 categories of abuse: physical abuse, emotional abuse, financial exploitation, sexual abuse, neglect by others, self-neglect, unreasonable confinement or restraint, and treatment without consent (Table 1). The Medical College of Wisconsin (MCW) and MCDA have partnered to increase recognition and referral of elder maltreatment by physicians and community service providers through the development and dissemination of educational materials (Stop Abuse and Neglect of Elders—SANE)[7] and surveillance of elder abuse reports in Milwaukee. This cross-sectional study describes the county's baseline elder abuse and neglect burden by victim, perpetrator, and reporter characteristics, using reports of elder abuse and neglect made to MCDA from 2006 to 2009.

METHODS

County agencies like MCDA report details of elder abuse investigations to the state using the Wisconsin Incident Tracking System (WITS). During the course of an elder abuse investigation, MCDA employees enter all known information about the elder and possible abuser(s) into a WITS online form.

The WITS database was used to examine elder abuse in Milwaukee County for reports made to MCDA from January 2006 to December 2009. These years were used to determine reporting trends prior to the 2010 dissemination of the SANE curriculum. Two WITS datasets containing details of each incident and characteristics of victims and perpetrators were analyzed using Stata 10.0 (Stata Corp LP, College Station, Texas). Variables included primary category of abuse, MCDA investigation result, referral source, elder demographics (age, gender, ethnicity, living arrangement, presence of morbidities such as dementia or alcohol abuse, and whether this was the first MCDA report filed for the particular elder), services offered to the elder, and perpetrator demographics (age, gender, relation to elder, history of drug/alcohol abuse or mental illness). Data was analyzed through tabulation of reports by different categories, such as age and category of abuse. The Poisson regression model

was used to look for significant changes in the number of reports for each year compared to 2006 while accounting for the population at risk in each year. Similar Poisson models with a change in referent year were used to examine reporting changes from 2007 to 2008 and from 2008 to 2009. Incidence rate ratios (IRR) and their 95% confidence intervals (CI) are shown. Chi square tests were used to compare gender and age groups with their respective proportions in Milwaukee County. Milwaukee County population estimates from the Wisconsin Department of Health Services were used to approximate the number of adults over 60 years old living in Milwaukee during 2006 to 2009.[8] With the exception of the Poisson regression model, data from the 4 years was combined to obtain a larger sample size for all analyses.

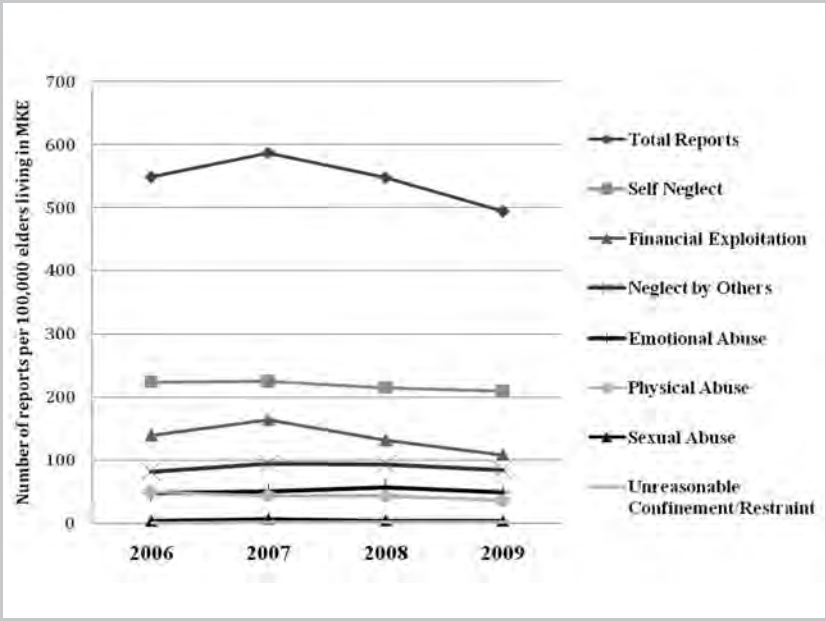

Figure 2. Annual rate of reports made to the Milwaukee County Department on Aging per 100,00 elders (60+) living in Milwaukee County.

Abuse cases were included based on outcome. Three outcomes for each MCDA investigation exist. The report can be "substantiated," meaning the investigation found the elder was at risk for abuse. It can be "unsubstantiated," meaning the investigation determined that the elder was not at risk for abuse, or that signs of abuse were discovered but the elder denied such abuse. Finally, the report can be "unable to be substantiated." This can mean a variety of things; mainly that MCDA did not find enough evidence to support either outcome.

To obtain a general overview of what types of abuse are being reported to MCDA, all reported cases were included in analyses of referral source, annual referral trends, and services offered by MCDA. Because the main goal of this project was to describe actual cases of abuse in Milwaukee County, only substantiated reports were included in all other analyses.

When someone contacts MCDA requesting information about elder abuse, and MCDA does not suspect abuse during this contact, the primary category for the call is filed as "Information Only." Such referrals to MCDA were removed from the analysis. Reports where the adult at risk was under the age of 60 also were excluded. For perpetrator analyses, reports where perpetrator age was unknown or reported as 0 were excluded as well.

RESULTS

A total of 3384 elder abuse reports were investigated by MCDA from 2006 to 2009 (823 in 2006, 912 in 2007, 859 in 2008, 790 in 2009). Cases of substantiated abuse made up 57.6% of total reports to MCDA; 32.7% of reports were found to be unsubstantiated, and 9.6% were unable to be substantiated. The rate of reports made to MCDA annually per 100,000 elders living in Milwaukee is shown in Figure 2.

Table 2. Poisson Regression of Number of Abuse Reports by Year

Year	Incidence Rate Ratio	95% Confidence Interval
2006	1.00	Referent year
2007	1.07	0.97-1.18
2008	1.00	0.91-1.10
2009	0.90	0.82-0.99

Note: Adjusted for population aged 60 years and older in each year.

There was a significant 10% decrease in the number of reports made to MCDA in 2009 compared to 2006 (IRR = 0.90; 95% CI 0.82 - .99. See Table 2. No significant change was found in the number of reports from 2006 to 2007 (IRR = 1.07; 95% CI .97 - 1.18) and 2007 to 2008 (IRR = 1.07; CI .98 - 1.18). There was a significant decrease in reports from 2008 to 2009 (IRR = 0.90; 95% CI = 0.82 - 0.99). The significant changes were associated with a decrease in the number of financial exploitation reports to MCDA in 2009 compared to 2006 (IRR = 0.78; 95% CI 0.64 - .95). No statistically significant change was found in the annual number of reports for other categories of abuse ($P > .05$).

Of significant importance in the study are those sources reporting elder abuse in Milwaukee County. Medical pro-

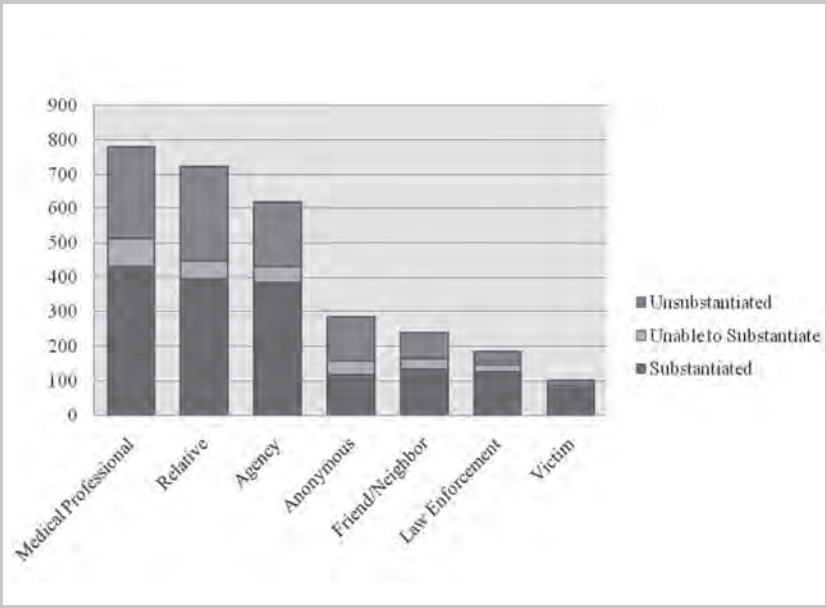

Figure 3. Milwaukee County Department on Aging (MCDA) investigation result by referral source. Note: This figure only includes the 6 most common referral sources and victim referrals investigated by MCDA during 2006-2009.

fessionals made the most referrals (23.0%) to MCDA from 2006 to 2009. The next highest categories were relatives of the alleged victim (21.4%) and "agency" (18.3%), which includes external agencies such as social service or home health agencies. Examination of outcomes of elder abuse investigations reported by each referral group demonstrated that 55.3% of referrals by medical professionals are substantiated after investigation (Figure 3). Interestingly, while only 3.0% of the referrals came from alleged victims, they had the lowest rate of unsubstantiated abuse for any of the referral sources (16.5%).

During the course of an investigation, MCDA may determine that the elder at risk would benefit from referrals to various services, regardless of whether abuse was substantiated or not. The list of services offered is extensive, and includes home-delivered meals, respite care, designation of substitute decision-maker, and placement into facility-based care. Nearly two-thirds of reports resulted in a service being offered; only 12.7% resulted in placement referrals to "facility based care" settings, including assisted living homes, nursing homes, and alcohol or drug rehabilitation centers.

To examine actual cases of abuse and neglect, further analysis of victim characteristics was performed with substantiated reports only (n = 1950). Elders over the age of 75 were over-represented ($P < 0.0005$); they made up 63.5% of MCDA reports, while only accounting for 39.6% of the elderly (age 60+) population in Milwaukee County. Women were involved in 63.8% of the remaining cases (n = 1947, 3 cases were excluded due to unknown gender), which was found to be significantly higher than the proportion of women in the elderly population (58.9%, $P < 0.0005$).

The majority of adults were white (62.0%), followed by African American (24.7%), and not reported or unknown (12.4%). Seventy percent of the calls made to MCDA were first-time reports for a particular elder.

Self-neglect was the most common form of elder abuse reported, with 1361 cases between 2006 and 2009. Medical professionals reported the most cases of self-neglect (26.3%). Relatives of the elder and agencies made up 20.2% and 12.2% of the referrals, respectively. Elderly self-neglect victims were commonly described as frail (64.8%) and often suffered from Alzheimer's disease or related dementia (19.8%) and/or some other form of mental illness (19.3%). In addition, 21.5% of these elders had another medical condition, and 15.4% suffered from alcohol or drug abuse (Table 3). More than 96% of self-neglect cases occurred in an elder's place of residence. Most commonly, victims lived alone in their own home or apartment (52.3%), but cases also were reported for elders living in their own home with others (29.9%). Self-neglect of an adult living with others can occur when an elder resides with someone not responsible for his or her care or with someone who is unable to provide care. Characteristics of self-neglect victims are shown in Table 3. Among the substantiated self-neglect cases in Milwaukee County, 12.9% were reported as life-threatening and were due to unfulfilled medical needs (39.8%), unsafe or unsanitary living environments (17.7%), or unmet physical needs (15.0%).

Types of elder abuse involving a perpetrator were combined and analyzed separately from self-neglect. These include financial exploitation, neglect by others, emotional abuse, physical abuse, sexual abuse, and unreasonable confinement and/or restraint. There were 2022 cases of abuse by a perpetrator reported from 2006 to 2009. Most of these reports were made by home health nursing and other agencies (22.4%), relatives (22.2%), and medical professionals (20.9%). Victims contact MCDA more often for these types of abuse (4.8%) as compared to self-neglect (0.9%).

In contrast to cases of self-neglect, 46.2% of the victims of substantiated abuse by a perpetrator were living in their own home or apartment with another person. More than 22% were living alone in their own home, and 19.5% were living

in a type of group home, including adult family home, nursing home, community-based residential facility, or residential care apartment complex. The most common characteristics of elders subject to abuse by a perpetrator were frailty (70.7%), Alzheimer's disease or related dementia (25.9%), medically fragile or other medical condition (20.6%), mental illness (9.2%), and physical disability (9.6%). Also, 5.2% of the elders were described as disoriented or confused, and 5.1% had impaired mobility (Table 3).

Table 3. Top Victim Characteristics of Self-Neglect Elderly and Elders Abused by a Perpetrator

	Self-Neglect (n=875)	Abuse by Perpetrator (n=1075)
Frail elderly	567 (64.8%)	760 (70.7%)
Alzheimer's or related dementia	173 (19.8%)	278 (25.9%)
Medically fragile/other medical mondition	188 (21.5%)	221 (20.6%)
Mental illness/chronically mentally ill	169 (19.3%)	99 (9.2%)
Physically disabled/other physical disability	57 (6.5%)	103 (9.6%)
Disorientated/confused	71 (8.1%)	56 (5.2%)
Alcohol/drug abuse	135 (15.4%)	37 (3.4%)
Mobility impaired	42 (4.8%)	55 (5.1%)

The perpetrator was the elder's son or daughter in almost half of the cases (48.3%), and the elder's spouse in 14.5% of the cases. Most commonly, the perpetrator is an adult male son, although perpetrator gender is almost evenly split; 53.0% were men, and 46.6% of them were women. Perpetrator age was similar to that of an elder's adult children; 67.2% of the perpetrators identified in substantiated abuse were 30-59 years of age. Those >70 years of age made up 14.9% of the perpetrators, consistent with the elder's spouse.

WITS data included perpetrator characteristics of alcohol and drug abuse or mental illness only after 2006. From 2007 to 2009, 20.9% of the perpetrators were reported to have an alcohol or drug abuse problem, and 14.1% had a mental illness.

DISCUSSION

WITS data provided a profile of elder abuse and neglect in Milwaukee County that helps inform health care professionals of the abuse burden. Self-neglect was the most common type of abuse, which mirrors nationwide statistics according to the 2004 Survey of State Adult Protective Services.[9] When the Milwaukee County profile is compared to the risk factors for elder abuse established in the medical literature (Figure 1), several similarities are seen among common victim and perpetrator characteristics, such as presence of Alzheimer's disease or related dementia and history of alcohol or substance abuse. However, while advanced age of 75 years and older and female gender were found to be over-represented among MCDA reports, they have not been identified consistently as risk factors in the literature. Self-neglect victims in Milwaukee County often are characterized by cognitive impairment and behavioral problems due to dementia and mental illnesses.

This study revealed a decrease in the number of reports made to the MCDA in 2009, primarily related to a decline in financial exploitation reporting. Considering the recent economic downturn, this decrease may be due to failure to recognize this kind of abuse instead of a decrease in instances of financial abuse in Milwaukee County. Further research is needed.

As stated previously, victims rarely report abuse, and this may be due to fear of institutionalization. However, only 12.7% of the elders in Milwaukee County received placement referrals to "facility based care" settings, including assisted living homes, nursing homes, and alcohol or drug rehabilitation centers. More often, MCDA offers a variety of services that help elders maintain independence in their homes.

Almost one-third of the elder abuse reports made to MCDA were unsubstantiated (32.7%). This is discouraging at first, but an unsubstantiated case can be a result of several circumstances. False claims do occur, either because a situation was misunderstood by the referral source, the referral source did not know all of the facts, or it was an intentional false claim to retaliate against an elder or caregiver. Additionally, elders themselves often deny abuse; they either truly do not consider certain actions abuse or exploitation, they are protecting an offender, or they are allowing the actions or situation by their own free will. Finally, the situation does not always meet the statutory definition of abuse, neglect, or exploitation. Often a suspected case that cannot be substantiated is closed, leaving the elder at continued risk unless an additional report is made. Because of this, it is imperative that physicians continue to report abuse seen repeatedly in a particular elder.

Several limitations are defined in this study. because this study is descriptive in nature and represents only those cases that are reported to MCDA, it remains undetermined whether the characteristics actually represent risk factors of abuse for elders residing in Milwaukee County or just common characteristics among reported cases. In addition, the WITS database was completed for administrative purposes only, so it lacks the completeness and categorization of a standard research database. Many of the variables, such as referral source or particular victim characteristics, are nonspecific and may be interpreted subjectively by each MCDA investigator upon entry of an abuse report. For example, the referral source "medical professional" does not clearly define whether a referral came from a physician, physician assistant, nurse practitioner, nurse, medical assistant, or any of several healthcare workers. Similarly, the

elder characteristic "frail" may be subject to several interpretations, including weak, in poor health, and of advanced age. For the purposes of this analysis, it was not possible to further define those variables. In addition, the perpetrator dataset was found to hold less complete data than the main elder abuse dataset, because MCDA employees often knew less identifying information about the perpetrator than they knew about the victim.

Finally, it is impossible to know with certainty the distribution of actual abuse in the "unable to substantiate" category. With that in mind, "substantiated" reports were the only cases where abuse was definitively found after an investigation, so they were the only cases used to describe actual abuse.

CONCLUSION

The elder abuse burden in Milwaukee County is substantial. With more than 3300 reports of abuse and neglect in 4 years and a rapidly growing elderly population, this problem holds significant relevance for physicians. Even though the number of reported cases dropped in 2009, it does not mean the number of elders being abused has done so. The patient-provider relationship places physicians in an ideal position to recognize and report suspected cases and prevent abused elders from falling through the cracks. Providers must make every possible attempt to recognize abuse by others and self-neglect early in the geriatric population because failure to do so can have devastating consequences. This cross-sectional study describing elder abuse victims and perpetrators identifies key characteristics of the vulnerable elder and potential abuser to inform and increase awareness of physicians and community service providers on this medically and socially germane issue.

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REFERENCES

1. *Elder Mistreatment: Abuse, Neglect and Exploitation in an Aging America.* 2003. Washington, DC: National Research Council Panel to Review Risk and Prevalence of Elder Abuse and Neglect.

2. Lachs M, Pillemer K. Elder Abuse. *Lancet.* 2004;364:1192-1263.

3. Tatara T, et al. *National Elder Abuse Incidence Study.* 1998. Washington, DC: National Center on Elder Abuse at American Public Human Services Association.

4. Fulmer T. Barriers to neglect and self-neglect research. *J Am Geriatr Soc.* 2008;56:S241-S243.

5. Doty MM, Meurer LN, Nguyen AL, et el. *Elder Abuse Risk and Profile of Reported Cases in Milwaukee County.* Presented to Society of Teachers of Family Medicine; Denver CO; May 2009. Available through the Family Medicine Digital Resource Library, http://www.fmdrl.org/index.cfm?event=c.beginBrowseD&clearSelections=1&criteria=doty#2350. Accessed November 6, 2011.

6. Wisconsin statute 2005 Act 388 (2005 AB 539), Wisconsin's Elder Abuse and Adult at Risk Reporting Law. Effective 5/10/06. http://legis.wisconsin.gov/2005/data/acts/05act388.pdf. Accessed November 6, 2011.

7. Milwaukee County Department on Aging. Stop Abuse and Neglect of Elders. http://www.milwcountysane.org/. Accessed November 6, 2011.

8. Wisconsin Department of Health Services, Division of Public Health, Bureau of Health Information and Policy. Wisconsin Interactive Statistics on Health (WISH) data query system, http://dhs.wisconsin.gov/wish/. Population Module. Accessed November 28, 2011.

9. Teaster P, Dugar T, Mendiondo M, Abner E, Cecil K. *The 2004 Survey of State Adult Protective Services: Abuse of Adults 60 Years of Age and Older.* 2006. http://www.ncea.aoa.gov/NCEAroot/Main_Site/pdf/2-14-06%20FINAL%2060+REPORT.pdf. Accessed November 6, 2011.

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