



ADVANCING HEALTH EDUCATION & RESEARCH

AVA Research Reviews provides AVA members with recent published, peer-reviewed articles in a broad array of violence and abuse topics. The goal is to highlight and disseminate violence and abuse research in a timely fashion, and to enhance healthcare providers' practice by fostering the educational mission of AVA

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AVA Research Review

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Review Title: The economic burden of child maltreatment in the United States and implications for prevention

Reviewer: David L. Chadwick, M.D., Brooks Keeshin, MD

Article:
Fang, X., et al., The economic burden of child maltreatment in the United States and implications for prevention. *Child Abuse Negl*, 2012. 36(2): p. 156-65.

Article Summary:
Brief Overview:

The authors estimate the costs of child maltreatment in order to justify prevention programs. They review the literature that describe the harms that result in burdens on health, welfare and legal systems in the U.S. and prior attempts to estimate these costs. They employ both incidence-based and prevalence-based approaches. The incidence-based approach

yields total lifetime costs of cases occurring in a single year. The prevalence-based approach yields the total costs of all cases occurring in a given year. The authors opine that incidence-based costs are more useful for their purpose of determining the value of prevention. In estimating costs of fatal cases the authors utilize estimates of "productivity loss".

Aims/hypotheses of the article:

Fang and colleagues performed a literature review exploring the economic costs of child maltreatment in a variety of different disciplines. In doing so, the authors moved out of a strictly health care-centric model of evaluating cost and provided a societal perspective of the annual incidence of child maltreatment costs in the United States. The authors utilized prior cost analysis research in the areas of long term medical costs, productivity losses, child

welfare costs, criminal justice costs and special education costs to provide point estimates of the costs of each. The aim was to provide a more complete estimate of the yearly costs of maltreatment per individual as impacted on the lifetime of that individual, or in cases of fatal maltreatment, the costs associated with that fatality.

Relevant findings:

Short-term health care costs of child maltreatment were based on several studies that examined both inpatient care and additional research that linked Medicaid claims. This allowed for a calculated value that included potential inpatient hospitalization costs immediately after the injury, as well as risk of additional medical costs prior to the age of 18, which was estimated to be \$32,000 more per maltreated child than non-maltreated children. In contrast, the long-term (or adult) medical costs were based on research which evaluated the health care utilization differences between adults with and without a history of childhood maltreatment, demonstrated to be approximately \$10,500 per case of maltreatment. Productivity losses were based on research which examined adult earnings with and without a history of child abuse or neglect, and found

that a history of child maltreatment reduced earnings on average by \$5,000 a year from ages 18 to 64. Child welfare costs were based on publications that examined the total costs of child abuse investigations, which was estimated at approximately \$7,700 per child. Special education costs were estimated at \$8,000 per child. Finally, incremental costs associated with use of the criminal justice system by victims of abuse were estimated for juvenile offenders and adult offenders at \$6,700 in people with a history of child maltreatment. For all cost assumptions, the authors utilized existing literature and they cite those references for each.

Authors' Conclusions:

The author's noted that using an incidence-based approach (compared to a prevalence-based approach), the lifetime economic burden of CM in 579,000 new cases of nonfatal CM and 1,740 cases of fatal CM (based upon U.S data in 2008) is approximately \$124 billion." The sensitivity analysis demonstrated the total burden to be as large as \$585 billion, when accounting for all cases investigated by CPS. In addition, the lifetime cost is estimated to be \$210,012 per victim of nonfatal CM and \$1,272,900 per victim of fatal CM. The authors also describe the contribution to the

literature in that they utilized a consistent, robust approach in incidence-based costing methods, which addressed the limitations of past estimates of the burden of CM. This paper also provided the most recently updated cost estimates for "accurate, contemporary policy analysis". The authors also comment that their approach (incidence-based) enables direct comparisons with other health conditions to support rational economic analyses of CM-specific policies. Finally, the authors report the cost outcomes and include sensitivity analyses on their estimates to reflect the facts that the "measure of burden is dependent on assumptions about discounting for present value and CPS data underestimate the total incidence of CM."

Potential limitations of the article/ findings:

The authors assume both the accuracy and generalizability of the research and data cited used calculate the cost of exposure to child maltreatment. In addition, the focus of the review is on exposure to abuse and neglect, for which there are several limitations. First, for the purposes of estimating cost using National Incidence Survey data, the authors assume that the costs resulting from the abuse of an individual is the same whether or not that

abuse is discovered. Second, limiting the data to classic definitions of abuse and neglect does not necessarily correlate with the significant number of publications that focus on the effects of adverse childhood experiences and toxic stress. Finally, readers who are naïve in economic language and jargon may find this article well written, but hard to read. The article would be more broadly and easily accessible by a diverse array of professionals if there would have been a few more definitions. With that said, this article is a must read for anyone in the violence and abuse field who is trying to advocate for the case that the costs of child maltreatment are substantial, and are in the range of several high health care utilization costs in the U.S. such as stroke or diabetes.

Reviewer's Comments:

The authors conclude that prevention programs are likely to be cost-beneficial given the significant economic burden for each incidence of exposure to child abuse. The authors' conclusion is encouraging to providers of prevention programs, and may provide justification and rationale for policy makers, resulting in better funding for evidence based and promising prevention programs.