

FACT SHEET

Violence and Chronic Illness



A growing body of science is consistently linking violence (the experience with and/or fear of) with risk for and incidence of a range of serious physical health problems. The effects of violence on health are a consequence of the physical, biological, environmental, social, behavioral, and emotional changes that violence imposes on all of us. While it has been long understood that violence has implications for emotional and physical injury,

it is only relatively recently that we are beginning to recognize the longer-term effects that reap an extensive toll on the broader health status of individuals, families and communities. These health consequences include asthma, significant alteration of healthy eating and activity, heart disease and hypertension, ulcers and gastrointestinal disorders, diabetes, neurological and musculoskeletal diseases, and lung disease.

Asthma

- **Adults with asthma who had witnessed violence in their neighborhoods were twice as likely to visit the hospital for asthma than those without exposure to violence (1)**
- **Children of mothers experiencing intimate partner violence have a 2-fold increased risk of developing asthma than those not exposed (2)**
- **In a study of 7 cities across the U.S., increased exposure to violence predicted higher number of days with significant symptoms related to asthma; the greater the exposure, the greater the number of symptomatic days (3)**
- **Chicago children from neighborhoods with moderate to serious problems with violence were about 60 percent more likely to develop asthma than children from less violent neighborhoods (4)**

Exposure and/or fear of violence is associated with both increased prevalence of and severity of asthma, particularly among children (1-6). This appears to be the case across cultural and geographic boundaries (7). Risk factors from violence that relate to asthma include:

- Enhancement of the effects of other asthma risk factors, e.g. air pollution (exposure to violence appears synergistic with exposure to air pollution in increasing the risk for developing asthma) (7)
- Increased stress and anxiety, which are known to trigger and exacerbate asthma (8,9)
- Parental stress/anxiety affecting compliance and medical follow up (4)
- Reduced physical activity affecting overall health and lung function (10)
- Physically deteriorated community environments enhancing exposure to allergens (4)

Other Chronic Illnesses

- Adults reporting exposure to violence as children had increased likelihood of a number of chronic health conditions compared those without such exposures, especially if their experience involved multiple forms of violence exposures (ischemic heart disease 2.2x, cancer 1.9x, stroke 2.4x, chronic obstructive lung disease 3.9x, diabetes 1.6x, hepatitis 2.4x) (11,12)
- Both men and women who experienced Intimate Partner Violence had an increased risk of developing a chronic disease than those not exposed (13,14)
- There is a significantly higher likelihood of engaging in behaviors known to contribute to chronic illness behaviors (smoking, eating disorders, substance abuse, decreased physical activity) for those who have been exposed to one or more of the range of types of interpersonal violence (e.g. child abuse, sexual assault, family violence, community violence) (11,14-18)
- Mothers with high exposure to community violence were twice as likely to report poorer health, smoking, and poor sleep habits (19)



“We know in Newark and in cities all across America that there are families that don’t let their children play because there’s no safe places to play, no green spaces to play. They want to keep their kids in the house for the basic human need of security.”

— Mayor Cory Booker, press conference, Office of the First Lady, April 1, 2010

Research, as well as clinical experience, has identified a broad range of chronic illnesses that are either brought on by exposure to violence or are in some way exacerbated as a consequence of violence (11, 20-28). Most of these studies have looked at multiple health consequences of exposure to violence rather than focusing on a single disease.

A brief list of disorders associated with experiencing violence (child abuse, family violence, community violence are all implicated) includes:

- Heart disease and hypertension
- Ulcers and other gastrointestinal disturbances
- Diabetes
- Neurological and musculoskeletal diseases
- Lung disease including asthma and chronic obstructive pulmonary disease (COPD)

“We have a wonderful gym in the park, but the kids don’t use it because they are afraid of the park.”

— Community Practitioner

Implications for Healthy Eating and Activity

- Children of women who report chronic intimate partner violence are 1.8 times more likely to be obese than other children; the effect is magnified for families living in unsafe neighborhoods (28)
- Researchers have found that women who perceive their neighborhoods to be unsafe are 25 percent more likely to be obese (29)
- Children of parents who perceived their neighborhood as unsafe were 4 times more likely to be overweight than those of parents who perceived their neighborhood as safe (30)
- Mothers with high exposure to neighborhood violence were twice as likely to report never exercising (31)
- Persons who described their neighborhood as not at all safe were nearly three times more likely to be physically inactive than those describing their neighborhood as extremely safe (32)

Exposure to and fear of violence of all types (domestic, interpersonal, community) creates barriers to healthy eating and behavior. This relationship appears to be the consequence of multiple effects of violence on communities individuals, and populations.

Effects on communities

- Reduced investment in community resources including parks and recreation facilities, and other activities that promote healthy activity (33)
- Reluctance for food related resources such as supermarkets to enter the community reducing access to healthy foods (34,35)
- Interference with the growth of social capital and infrastructure that promotes healthy living (32,36-39)

Effects on individuals and populations

- Reduced physical activity / Increased sedentary time (40-46)
- Increased use of processed and unhealthy food due to decreased access to food choices (36,37)
- Reduce optimism, increased anxiety and other emotional consequences affecting motivation for healthy living and activity (29,47-50)
- Parental restriction of activity of children, especially related to the outdoors (44,51)

“Community safety is our number one concern. If our employees feel unsafe coming to work, or our patrons are scared to shop in the area, we won’t open a store there.”

— Head of security for a major retail corporation
Gang Violence Prevention and Crime Control Meeting,
The White House, Washington DC, August 24, 2009

MAKING THE CASE

So what does this all mean?

We must recognize and understand that all forms of violence in the family and the community take a serious toll on the general health and well-being of all community members. Every system in the body from our hearts to our lungs to our intestines to our nervous systems can be affected in harmful ways. And many of the behaviors that contribute to poor health can be exacerbated, further affecting how we feel and function. When we consider the rapidly growing costs of health care and the general decline in health status among Americans over the past generation, preventing

violence before it occurs needs to be included in the larger plan to improve health. In addition to ensuring that violence is addressed through health and prevention planning, there is also an emerging set of strategies to simultaneously address the intersection of violence and chronic disease. For example, key opportunities to integrate efforts to prevent violence into healthy eating and active living strategies include creating safe spaces, promoting community development and employment, and fostering social cohesion.

TO LEARN MORE

- Visit the [UNITY homepage](http://www.preventioninstitute.org/unity.html). www.preventioninstitute.org/unity.html
- Review [Addressing the Intersection—Preventing Violence and Promoting Healthy Eating and Active Living](http://www.preventioninstitute.org/component/jlibrary/article/id-267/127.html). This paper describes how violence exacerbates chronic diseases and perpetuates health disparities, and why preventing violence is crucial for health. www.preventioninstitute.org/component/jlibrary/article/id-267/127.html
- Access strategies, tools and resources in Prevention Institute's [Preventing Violence & Reducing Injury focus area](http://www.preventioninstitute.org/focus-areas/preventing-violence-and-reducing-injury.html). www.preventioninstitute.org/focus-areas/preventing-violence-and-reducing-injury.html
- Read the [UNITY Policy Platform](http://www.preventioninstitute.org/component/jlibrary/article/id-290/127.html). Developed partnership with UNITY cities, the UNITY Policy Platform describes the kinds of strategies that need to be in place to prevent violence. www.preventioninstitute.org/component/jlibrary/article/id-290/127.html

UNITY builds support for effective, sustainable efforts to prevent violence before it occurs so that urban youth can thrive in safe environments with supportive relationships and opportunities for success.

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References

1. Apter AJ, Garcia LA, Boyd RC, Xingmei Wang, Bogen DK, MD, PhD, Ten Have T. Exposure to community violence is associated with asthma hospitalizations and emergency department visits. *The Journal of Allergy and Clinical Immunology*, September 2010, 126/3. 552-57.
2. Suglia SF, Enlow MB, Kullowatz A, Wright R J. (2009). Maternal intimate partner violence and increased asthma incidence in children: Buffering effects of supportive caregiving. *Archives of Pediatrics & Adolescent Medicine*, 163(3), 244-250.
3. Wright RJ, Mitchell H, Visness CM, Cohen S, Stout J, Evans R, MD, Gold DR. Community Violence and Asthma Morbidity: The Inner-City Asthma Study. *American Journal of Public Health*, April 2004, Vol 94, No. 4; 625-63.
4. Sternthal MJ, Jun HJ, Earls F, Wright RJ. Community violence and urban childhood asthma: a multilevel analysis. *Eur. Respir. J.*, December 1, 2010; 36(6): 1400 – 1409.
5. Wright RJ, Steinbach SF. Violence: an unrecognized environmental exposure that may contribute to greater asthma morbidity in high risk inner-city populations. *Environ Health Perspect*. 2001 October; 109(10): 1085-1089.
6. Fujiwara T. Violence and Asthma: A Review. *Environmental Health Insights* 2008;2 45-54.
7. Subramanian SV, Ackerson LK, Subramanyam MA, Wright RJ. Domestic violence is associated with adult and childhood asthma prevalence in India. *International Journal of Epidemiology*. Feb 2007; Volume 36, Issue 3; 569-579.
8. Clougherty JE, Levy JI, Kubzansky LD, Ryan BP, Franco Suglia S, Jacobson Canner M, Wright RJ. Synergistic Effects of Traffic-Related Air Pollution and Exposure to Violence on Urban Asthma Etiology. *Environ Health Perspect*. 2007 August; 115(8): 1140-1146.
9. Swahn MH, Bossarte RM. The Associations Between Victimization, Feeling Unsafe, and Asthma Episodes Among US High-School Students. *American Journal of Public Health*. May 2006, Vol 96, No. 5; 802-804.
10. Chen E, et al. (2006). Socioeconomic status and inflammatory processes in childhood asthma: the role of psychological stress. *J of Allergy Clin Immunol*, 117, 1014-1020.
11. Carver A, Timperio A, et al. (2008). Perceptions of neighborhood safety and physical activity among youth: the CLAN study. *J Phys Act Health*, 5, 430-444.
12. Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., et al. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. the adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine*, 14(4), 245-258.
13. Shonkoff J, et. al. Neuroscience, Molecular Biology, and the Childhood Roots of Health Disparities: Building a New Framework for Health Promotion and Disease Prevention. *Journal of the American Medical Association*. 2009;301(21):2252-2259.
14. Coker, A. L., Smith, P. H., Bethea, L., King, M. R., & McKeown, R. E. (2000). Physical health consequences of physical and psychological intimate partner violence. *Archives of Family Medicine*, 9(5), 451-457.
15. Adverse health conditions and health risk behaviors associated with intimate partner violence—United States, 2005. *MMWR Morb Mortal Wkly Rep*. 2008 Mar 7;57(9):237.
16. McNutt, L. A., Carlson, B. E., Persaud, M., & Postmus, J. (2002). Cumulative abuse experiences, physical health and health behaviors. *Annals of Epidemiology*, 12(2), 123-130.
17. Plichta, S. B. (2004). Intimate partner violence and physical health consequences: Policy and practice implications. *Journal of Interpersonal Violence*, 19(11), 1296-1323.
18. Vermeiren R, Schwab-Stone M, Deboutte D, Leckman PE, Ruchkin V. Violence Exposure and Substance Use in Adolescents: Findings From Three Countries. *Pediatrics*. Vol. 111 No. 3 March 2003, pp. 535-540.
19. Salzinger S, Feldman R, Stockhammer T, Hood J. An ecological framework for understanding risk for exposure to community violence and the effects of exposure on children and adolescents. *Aggression and Violent Behavior*. Volume 7, Issue 5, September-October 2002, Pages 423-451.
20. Johnson SL, et al. Neighborhood violence and its association with mothers' health: assessing the relative importance of perceived safety and exposure to violence. *J Urban Health*. 2009, 86;4:538-50.
21. Springer, K. W., Sheridan, J., Kuo, D., & Carnes, M. (2007). Long-term physical and mental health consequences of childhood physical abuse: Results from a large population-based sample of men and women. *Child Abuse & Neglect*, 31(5), 517-530
22. Wegman, H. L., & Stetler, C. (2009). A meta-analytic review of the effects of childhood abuse on medical outcomes in adulthood. *Psychosomatic Medicine*, 71(8), 805-812.
23. Repetti, R. L., Taylor, S. E., & Seeman, T. E. (2002). Risky families: Family social environments and the mental and physical health of offspring. *Psychological Bulletin*, 128(2), 330-366.
24. Greenfield, E. A., & Marks, N. F. (2009). Profiles of physical and psychological violence in childhood as a risk factor for poorer adult health: Evidence from the 1995-2005 national survey of midlife in the United States. *Journal of Aging and Health*, 21(7), 943-966.
25. Egan, M., Tannahill, C., Petticrew, M., & Thomas, S. (2008). Psychosocial risk factors in home and community settings and their associations with population health and health inequalities: A systematic meta-review. *BMC Public Health*, 8, 239.
26. Breiding, M. J., Black, M. C., & Ryan, G. W. (2008). Chronic disease and health risk behaviors associated with intimate partner violence—18 U.S.

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27. Rohrer, J. E., Arif, A. A., et al. (2004). Unsafe neighborhoods, social group activity, and self-rated health. *J Public Health Manag Pract*, 10, 124-129.
28. Kendall-Tackett, K., & Marshall, R. (1999). Victimization and diabetes: An exploratory study. *Child Abuse & Neglect*, 23, 593-596.
29. Boynton-Jarrett R, Fargnoli J, Suglia SF, Zuckerman B, Wright RJ. (2010). Association between maternal intimate partner violence and incident obesity in preschool-aged children: Results from the fragile families and child well-being study. *Archives of Pediatrics & Adolescent Medicine*, 164(6), 540-546.
30. Burdette HL, Wadden TA, Whitaker RC. Neighborhood safety, collective efficacy, and obesity in Women with young children. *Obesity* (2006); 14;518-25.
31. Lumeng J, Appugliese D, Cabral HJ, Bradley RH, Zuckerman B. Neighborhood safety and overweight status in children. *Arch Pediatr Adolesc Med*. 2006;160;25-31
32. Johnson SL, et.al. Neighborhood violence and its association with mothers' health: assessing the relative importance of perceived safety and exposure to violence. *J Urban Health*. 2009, 86;4;538-50
33. Centers for Disease Control and Prevention. Perceptions of Neighborhood Characteristics and Leisure-Time Physical Inactivity—Austin/Travis County, Texas, 2004. *MMWR*. Sept. 23, 2005; 54(37);926-8.
34. Bennett GG, McNeil LH, et al. Safe to walk? Neighborhood safety and physical activity among public housing residents. *PLoS Medicine*. 2007;4(10):e306
35. Zenk SN, Schulz AJ, Israel BA, James SA, PhD, Shuming Bao, Wilson ML. Neighborhood Racial Composition, Neighborhood Poverty, and the Spatial Accessibility of Supermarkets in Metropolitan Detroit. *American Journal of Public Health*. April 2005, Vol 95, No. 4; 660-667.
36. Odoms-Young AM, Zenk S, Mason M. Measuring food availability and access in African-American communities: Implications for intervention and policy. *American Journal of Preventive Medicine*. 2009; 36(4S1):S145-S150.
37. Harrison RA, Gemmell I, Heller RF. The population effect of crime and neighbourhood on physical activity. *Journal of Epidemiology and Community Health*. 2007;61:34-39.
38. Harrison RA, Gemmell I, Heller RF. The population effect of crime and neighbourhood on physical activity: An analysis of 15,461 adults. *Journal of Epidemiology and Community Health*. 2007;61:34-39.
39. Vest J, Valadez A. Perceptions of neighborhood characteristics and leisure-time physical inactivity—Austin/Travis County, Texas, 2004. *CDC Morbidity and Mortality Weekly Report*. 2005;54(37):926-928.
40. Yancey AK, Kumanyika SK. Bridging the gap: Understanding the structure of social inequities in childhood obesity. *American Journal of Preventive Medicine*. 2007;33(4S1): S172-S174.
41. Carver, A., Timperio, A., et al. (2008). Perceptions of neighborhood safety and physical activity among youth: the CLAN study. *J Phys Act Health*, 5, 430-444.
42. Centers for Disease Control and Prevention. (1999). Neighborhood safety and the prevalence of physical inactivity—selected states, 1996. *MMWR Morb Mortal Wkly Rep* 48, 143-146.
43. Loukaitou-Sideris A. Is it safe to walk?: Neighborhood safety and security considerations and their effects on walking. *Journal of Planning Literature*. 2006;20(3):219-32.
44. Molnar BE, Gortmaker SL, Bull FC, et al. Unsafe to play? Neighborhood disorder and lack of safety predict reduced physical activity among urban children and adolescents. *American Journal of Health Promotion*. 2004;18(5):378-386.
45. Sallis JF, King AC, et al. Perceived environmental predictors of physical activity over 6 months in adults: Activity counseling trial. *Health Psychology*. 2008;27(2):214.
46. Eyler AA, Matson-Koffman D, et al. Quantitative study of correlates of physical activity in women from diverse racial/ethnic groups: The women's cardiovascular health network project summary and conclusions. *American Journal of Preventative Medicine*. 2003;25(3Si):93-103.
47. Vest J, Valadez A. Perceptions of neighborhood characteristics and leisure-time physical inactivity—Austin/Travis County, Texas, 2004. *CDC Morbidity and Mortality Weekly Report*. 2005;54(37):926-928.
48. Greenfield E, N. Marks N. Violence from parents in childhood and obesity in adulthood: Using food in response to stress as a mediator of risk. *Social Science & Medicine*, 2009, Volume 68, Issue 5, Pages 791-798.
49. Alvarez J., Pavao J, Baumrind N, Kimerling R. (2007). The relationship between child abuse and adult obesity among California women. *American Journal of Preventive Medicine*, 33(1), 28-33.
50. Frayne, Susan M.; Skinner, Katherine M.; Sullivan, Lisa M.; Freund, Karen M. Sexual Assault While in the Military: Violence as a Predictor of Cardiac Risk? *Violence and Victims*, Volume 18, Number 2, 2003:219-225(7).
51. Williamson, D. F., Thompson, T. J., Anda, R. F., Dietz, W. H., & Felitti, V. (2002). Body weight and obesity in adults and self-reported abuse in childhood. *International Journal of Obesity and Related Metabolic Disorders: Journal of the International Association for the Study of Obesity*, 26(8), 1075-1082.
52. Weir LA, Etelson D, Brand DA. Parents' perceptions of neighborhood safety and children's physical activity. *Preventive Medicine*. 2006;43(3):212-7.