Published in final edited form as:

Health Place. 2008 September ; 14(3): 616–622. doi:10.1016/j.healthplace.2007.09.006.

Whither Gender in Urban Health?

Victoria Frye⁽¹⁾, Sara Putnam⁽¹⁾, and Patricia O'Campo⁽²⁾

(1)*New York Academy of Medicine, Center for Urban Epidemiological Studies, 1216 Fifth Avenue, New York, NY 10019*

(2)*Centre for Inner City Research, St. Michael's Hospital, University of Toronto*

Abstract

The past decade has witnessed the rapid expansion of the field of urban health, including the establishment of an international society of urban health and annual conference, the publication of several books and the growing popularity of a peer-reviewed journal on urban health. Relatively absent is an emphasis on the role of gender in urban health, despite scholarly and theoretical work on gender and place by feminist demographers, sociologists, public health researchers and others. This essay examines the treatment of gender within urban health and, drawing on insights from the social sciences, offers suggestions as to how urban health researchers might adopt an intersectional and gendered approach that will advance our understanding of the production of urban health for women and men.

Urban health research has been defined most succinctly as “the study of the health of urban populations” (Galea and Vlahov, 2005). What is classified as “urban” varies considerably, but in the United States is recognized as an area densely populated by more than 50,000 people (Galea, Freudenberg, and Vlahov, 2006). Though public health has a tradition of connecting the urban environment to health outcomes (Brown, Fee, 2006; Griscom 1845; Shattuck and others 1850), the past decade has witnessed a renewed interest in the topic. In 1998, the *Journal of Urban Health* was established, and across the public health literature there has been a dramatic increase in the number of empirical analyses of the relationship between the urban environment and health outcomes.ⁱ In 2002, the International Society for Urban Health (ISUH) was convened, and the annual conference it sponsors has become increasingly popular. Major governmental organizations and world bodies, including United States Agency for International Development (USAID) and the World Health Organization (WHO), have set up task forces and initiatives dedicated to addressing the challenges of urban health. The number of academic and medical research centers focusing on urban health has expanded considerably in the past decade; beginning with City University of New York's Hunter College, at least seven academic institutions across the United States now offer MPH programs in urban health. These developments reflect a growing recognition among public health researchers and practitioners of the health effects of urbanization and other phenomena related, but not unique, to city living, such as immigration, deindustrialization and gentrification (Fullilove, 2006; Galea, Freudenberg, and Vlahov, 2006). Further, these health effects are gaining increasing relevance (Galea and Vlahov, 2005; Northridge, Sclar, Biswas, 2003) as it is projected that

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ⁱAn October 4, 2006, PubMed search revealed that over 12,000 articles that contain the phrase “urban health” in titles, keywords and abstracts have been published since 1960, with over 40% of them published since 2000.

soon half of the world's population will be living in urban areas (Freudenberg, Galea, and Vlahov, 2006).

The purpose of this commentary is to evaluate how the concept of gender is being integrated into this recent focus on urban health, and to discuss the need for further application of a gendered perspective to urban health research. This examination is meant to spark discussion in the field of urban health on the notion of "gender," which we hold to be not biologically determined, but a socially constructed category and a system (Chafetz, 1989; Ridgeway, Smith-Lovin, 1999), reflecting and reinforcing political, social, and cultural power relations over time and space between women and men both individually and as classes. Our perspective reflects several recent critiques of social epidemiology, a discipline within which urban health studies are often situated, which hold that the discipline often ignores the political and systemic nature of social stratification, instead studying the health impact of decontextualized, isolated characteristics of populations (i.e., income distribution) (Muntaner, Lynch, and Davey Smith, 2003; Raphael and Bryant, 2003; Williams, 2003).

Is Gender Missing from Urban Health Research?

To answer this question, first we looked for empirical evidence on how well gender has been integrated into recent urban health research. A literature search for papers published between 1960 and 2006 (conducted on 10/13/06) using PubMed finds that of the 12,286 papers containing the phrase "urban health", just 432 (about 3.5%) also use the term gender (a large number of which use the term in a list of factors examined or controlled). In addition, we examined the articles indexed in the regular literature reviews on the International Society for Urban Health's (ISUH) website and found that of the 237 articles listed between November 2003 and June 2005, 10 focused exclusively on women's health or compare women's health outcomes to men's. One such article on neighborhood effects on birth weight discusses neighborhood crime and isolation as a major source of stress for pregnant women (Morenoff, 2003), yet it fails to mention the form of crime and violence that women are most likely to experience, intimate partner violence (Catalano 2005), which is also associated with stress and isolation and is possibly exacerbated by pregnancy (Frye, 2001). As another example, a recently published *Handbook of Urban Health* (Galea and Vlahov, 2005) has chapters on each of the major populations represented in urban areas, such as sexual minorities, racial and ethnic minorities and immigrants, but has no chapter that exclusively focuses on how women's and men's health may be uniquely affected by gendered aspects of and relations within the urban environment or on how the gender system (Ridgeway, Smith-Lovin, 1999) and urban living interact to produce health for both men and women.

Why Focus on Gender in Urban Health Research?

This problematic absence of a gender focus in urban health research has been noted in a new book entitled *Cities and the Health of the Public* (Freudenberg, Galea, Vlahov, 2006), although the reasons for filling the gap are not well explored. We believe there are several reasons to focus on gender in urban health research. First, adding some understanding of the gendered production of urban health is worthy of consideration at the very least because of the implications of scale — the gender system influences all members of all urban populations. Second, applying a gendered approach reveals that, despite significant shifts in gender roles in the past fifty years, women and men still often occupy different physical and social spaces in urban areas (Hubbard, 2004; Peterson, Wekerle, Morley, 1978; Wekerle, 1980), spaces that may act to reinforce traditional gender roles in society and the gendered division of labor. This spatial stratification has implications for gender differences in urban health outcomes. Third, many urban health researchers concern themselves with the social justice aspect of urban living, focusing on how the maldistribution of resources within the urban environment adversely

influences the health of its least powerful residents (Freudenberg, 2000). According to this perspective, health is inextricably linked to systems of political and economic power whereby the powerful accrue a range of resources and appropriate healthy environments that act to improve their health and life chances, whereas the powerless do not. Analyses of the political economy have clearly demonstrated that class-based systems of socio-political power have profound influences on the physical development and social organization of the city via gentrification of the inner city (Smith, 1998), which in turn has had impacts on the distribution of urban health problems. Understanding how gender works within this process to influence health outcomes will provide crucial information to improve the public's health, as well as potentially challenging traditional gender roles that have contributed to women's and men's poor health.

The more general need for gender analysis in public health and epidemiology has been raised, albeit somewhat sporadically (Auerbach, Figert, 1995; Inhorn, Whittle, 2001; Moss, 2002; Slater, Guthrie, Boyd, 2001; Zierler, Krieger, 1997). These analyses have, for example, urged public health researchers to consider gendered power as an important factor that influences the health of populations (Hammarstrom, Ripper, 1999). Some have offered concrete frameworks and suggestions for public health researchers that would facilitate the identification of gendered macro-level determinants of health (Moss, 2002). However, little of this extant work has been specifically applied to the new urban health research agenda. To catalyze further attention to the role of gender in urban health, we seek here to describe how one might better integrate gender into analyses of urban health. Thus, we first examine various disciplines' conceptualizations of gender and space for direction and then offer several concrete suggestions that may facilitate the adoption of both gendered and intersectional approaches in urban health research.

Gender in Urban Space/Place: Lessons from Feminist Scholarship

Within the social sciences, a treatment of gender particularly germane to the study of how urban space influences health can be found in the field of geography, where there exists the subfield of feminist geography. Feminist geographers put women on the map, so to speak; they locate them, describe their living situations and consider how space and gender interact. Thus, feminist geographers have uncovered the history of sex segregation in day-to-day life, housing, city planning, work settings, organizational structures, education and transportation (Amis, 1995; Massey, 1994; McDowell, 1999; Spain, 1992). They have also revealed the ways that the restriction of women's access to physical space works to restrict women's access to knowledge, power and resources that would, and will, eventually help them ascend the hierarchical status ladder. For example, feminist geographer Daphne Spain (1992) describes how living spaces in both developed and developing countries have historically segregated women from men, creating spaces where men share knowledge specific to skills that ensure their higher value to the larger society. More recently, Hubbard (2004) described the forced displacement of the sex industry in New York City as a gendered phenomenon intimately connected to gentrification and the re-establishment of a patriarchal gender order in a major urban area.

Perhaps most salient to our current understanding of how urban living conditions might uniquely influence women's health is the feminist observation that women's space is "private," whereas men's is "public" (Landes, 2003; Spain, 1992). Women historically have been excluded from or are extremely vulnerable in public places; for example, female sex workers in Victorian England were called street walkers, and any woman who appeared alone in public ran the risk of being identified and treated as sexually available (Cott, 1986). Thus, the threat of sexual violence in public kept women at home. Women's private space was constituted by the home and responsibilities as homemakers and mothers. The private home as women's space

at times extended to the neighborhood and community (Wekerle, 1980). Typically, upper- and middle-class, non-working women were frequently the organizers and attendees of parent-teacher associations, block associations and community groups that unified the community and addressed issues of concern to women, such as schools and safety (Frumkin, 2005). Jane Jacobs (1961) observed in her analysis of urban planning that city space is gendered, with men's space in the center city or downtown far from residential life, which was women's space. Interestingly, Jacobs interprets this as characteristic of a matriarchal society, as opposed to recognizing it as a way of segregating women from the public world of paid work, the economy and thus political and economic power.

While the private/public dichotomy is central to a gendered understanding of women's experience of space and other arenas (Okin, 1998), Black feminist and Diaspora scholars have observed that it is not a ubiquitous dichotomy and is more characteristic of upper class, Western women's lives (Collins, 1998). This observation leads to another critical component in thinking about gender and urban health: the intersect of gender with other major social structures and systems, such as race and class, which also constitute the social environment. The concept of intersectionality, rooted in Black feminist, postcolonial and multicultural feminist thought, was motivated partially by the observation that extant conceptualizations of gender and race failed to capture the lived experience of Black women and non-Western women, who experience their race and their gender as "simultaneously linked", such that race is gendered and gender is racialized (Browne, Misra, 2003). Further, race, class and gender are linked at both the individual and the spatial levels, with spaces being both racialized and sexualized.

An intersectional approach then requires that one theorize and investigate whether the influence of race and class structures on health outcomes are contingent on gender structures at the macro-level and whether and how individual-level sex and/or gender influence these relationships. For example, an important and unexamined question is how patterns of residential racial segregation, potentially influence African-American mothers' ability, relative to men and white women, to access and maintain employment that provides adequate pay and health benefits. Local employers may tend to offer lower-wage, service sectors jobs, and non-local employers may consider lengthy commutes a hiring risk in terms of job attendance, particularly for working mothers. Further, if women's gendered space, as constituted, for example, by their responsibilities as the primary caregivers to children, centers more around the home than the work place, the spatial distribution of employment opportunities, schools and neighborhood resources more markedly influence women's lives, and their health, than men's (see for example Pratt and Hanson (1994)). While the disease burden may be counterbalanced by other risks that men experience, the solution for women may be different than for men. Previous analyses of how urban planning influences gender roles suggest that spatial arrangements profoundly affect women's abilities to work and raise families in relative proximity (Lewis, Foord, 1984; MacKenzie, 1988).

Bringing together then the classical feminist dichotomization of public/private, the more recent understanding of local space, and the Black feminist notion of intersectionality, feminist geographers add that space and place can perhaps best be understood as social relationships and processes *played out in and making up space*. Thus, Doreen Massey (1994) writes, space is "not some absolute independent dimension, but (is) constructed out of social relations... what is at issue is not social phenomena in space but both social phenomena and space as constituted out of social relations." Similarly, Bondi's (1991) evaluation of how gender is treated in analyses of urban gentrification relies on a conceptualization of gender as a relational and interactive process played out in dynamic and shifting spaces (Bondi, 1991; Nightingale, 2006; Pratt, Hanson, 1994). Such a view emphasizes space's essential dynamism, not in terms of heterogeneity of "populations" of people, which implies static chunks of data, but as the ever-changing product of social systems, produced and reproduced through social, political

and economic structures and interactions. It also creates room for gender analyses that do not focus solely on women's health or treat gender as a static individual trait, but assess gender as an essential component of the socially interactive urban environment.

What is to be gained by applying these gender lessons to studies of urban health? First, such an application would result in more historically situated analyses that acknowledge and explore how and why urban living differs for women and men. Such an approach may yield unique insights into solutions to major public health problems facing urban men and women, such as HIV, violence, and chronic diseases such as diabetes and asthma. Second, the approach would allow examination of how simultaneously linked identities and positions in the social hierarchy influence health outcomes among urban dwellers. Thus, no one social category is privileged at the expense of the other in analyses of urban health outcomes. Finally, applying these insights, specifically adopting an intersectional approach, to the study of health problems among urban men and women are particularly important for empirical reasons. In general US women earn less and are poorer than men (DeNavas-Walt et al. 2005), but urban women in particular are poorer than both non-urban dwelling women and urban men (Haynie, Gorman, 1999). Studying the intersect between poverty and gender and applying other intersectional approaches to the study of urban health problems promises to identify important ameliorative strategies for urban men and women (Geronimus, 2000).

Integrating Gender into Urban Health Research

How do we go about better integrating gender into urban health research? Here we have four concrete recommendations. First, it is crucial to theorize how and why urban, gendered social and physical environmental structures intersect to produce health in both women *and* men. Our call echoes others' invitations for stronger theory building within social epidemiology (Carpiano, Daley, 2006a; Carpiano, Daley, 2006b; Kickbusch, 2006), traditional epidemiology (see, for example, Pearce(1996)) and related disciplines. In order to adopt a gendered approach, urban health researchers should engage feminist geography (Massey, 1994; McDowell, 1999; Spain, 1992), feminist social and psychological theory (Chafetz, 1989; Ridgeway, Smith-Lovin, 1999; West, Zimmerman, 1987), feminist political economic theory (Doyal, 1995; Ferber, Nelson, 1993) and other critical approaches (Amis, 1995; Castells, 1976; Morgen, Maskovsky, 2003) in developing conceptual models of how the urban environment influences health outcomes for men and women. Moss' (2002) comprehensive conceptual model, for example, provides an excellent platform from which urban health researchers can expand theories of how gendered urban health structures and other factors influence health and well-being for urban men and women. Similarly, Spitzer (2005) recently has published an overview of how gender intersects with other social structures, such as age, economic opportunities and race, and interacts with health conditions and behaviors to produce health disparities between men and women.

Second, urban health research should consistently and systematically investigate gender in empirical analyses of the impact of the urban environment on health. Thus, researchers should conceptualize gender as a structural and "fundamental" cause of disease (Moss, 2002; Williams, 2003) and evaluate how macro-level, gendered social and physical structures influence micro-level health outcomes. As an example, a recent research report investigated interactions between area-level measures of socioeconomic and social capital factors and individual-level gender and found that political participation and safety at the neighborhood level were protective of women's, but not men's, self-rated health (Kavanagh, Bentley, Turrell, Broom, Subramanian, 2006). To encourage this approach, research sponsors should call for and fund research into the role of gender in the distribution of health and well-being among urban populations. Such a call would surely stimulate researchers to use the excellent and existing models for investigating gender systems and roles as major determinants of health and

well-being (Inhorn, Whittle, 2001; Moss, 2002). In addition, urban health conference organizers should consider a meeting theme focusing on how gender works to produce health and well-being among urban populations.

Third, integrating an explicitly gendered approach may necessitate collecting new types of data from urban populations, data that are not available from existing archival sources and may require original surveying, ethnographic mapping and systematic observation. It also requires using blended methodologies that accept historical and qualitative analyses as empirical data and work towards *understanding* health problems, instead of *quantifying* them.

Finally, we present a recommendation that we hope will stimulate activity in each of the three areas just identified. There is a strong need to establish a norm of inter-disciplinary work and training among urban health researchers, in order that the field does not default to the largely atheoretical and positivist methods and approaches of the public health and epidemiological research within which it is currently situated. Thus, centers for urban health research should include among their faculty urban planners, urban sociologists, ethnographers, geographers, epidemiologists, and community psychologists. Each will offer unique insights into how the urban environment influences health and well-being among urban populations. Training programs in urban health should think critically about which research paradigm (e.g., sociomedical vs. sociological (Aneschensel, Rutter, Lachenbruch, 1991) or risk factor epidemiology vs. critical/popular epidemiology (Inhorn, Whittle, 2001)) will dominate their curriculum and in which biomedical and social science disciplines their students will receive advanced training.

In conclusion, a gender analysis can be and should be a part of the urban health research agenda. Better integrating a focus on gender at various levels will result in a clearer conception of how the urban environment influences and produces the health and well-being of both men and women. Although it is challenging to, first, conceptualize and measure these intersecting and power-based systems of stratification, second, recognize the economic and social forces that give rise to them and, finally, link them to health outcomes via complex social and physiological processes, such attention promises to generate a better understanding of the health of those living in urban areas, where so many different groups of people intersect and interact daily.

References

- Amis P. Making sense of urban poverty. *Environment Urbanization* 1995;7:145–158.
- Aneschensel CS, Rutter CM, Lachenbruch PA. Social structure, stress and mental health: competing conceptual and analytic models. *Am Sociol Rev* 1991;56:166–178.
- Auerbach JD, Figert AE. Women's health research: public policy and sociology. *J Health Soc Behav* 1995;Spec No:115–31. 115–131. [PubMed: 7560844]
- Bondi L. Gender divisions and gentrification: a critique. *Trans Inst Br Geogr* 1991;16:190–198.
- Brown TM, Fee E. Rudolf Carl Virchow: medical scientist, social reformer, role model. *Am J Public Health* 2006;96:2104–2105. [PubMed: 17077410]
- Browne I, Misra J. The intersection of gender and race in labor markets. *Annu Rev Sociol* 2003;29:487–513.
- Carpiano RM, Daley DM. A guide and glossary on post-positivist theory building for population health. *J Epidemiol Community Health* 2006a;60:564–570. [PubMed: 16790824]
- Carpiano RM, Daley DM. Theory building on the high seas of population health: Love Boat, Mutiny on the Bounty, or Poseidon Adventure? *J Epidemiol Community Health* 2006b;60:574–577. [PubMed: 16790828]
- Castells, M. Is there an urban sociology?. In: Pickvance, C., editor. *Urban Sociology: Critical Essays*. Tavistock; London: 1976.
- Catalano, SM. Criminal Victimization, 2004. U.S. Bureau of Justice Statistics; NCJ: 2005. 210674

- Chafetz, JS. *Gender Equity: An Integrated Theory of Stability and Change*. Sage Publications; Newbury Park: 1989.
- Collins, PH. *Fighting Words: Black Women and the Search for Justice*. University of Minnesota; Minneapolis: 1998.
- Cott, N. *Roots of Bitterness: Documents of the Social History of American Women*. Northeastern University; Boston: 1986.
- DeNavas-Walt, C.; Proctor, BD.; Lee, CH.; US Census Bureau. *Income, Poverty and Health Insurance Coverage in the United States: 2004*. Washington, DC: US Government Printing Office; 2005. p. 60-229. *Current Population Reports*
- Doyal, L. *What Makes Women Sick: Gender and the Political Economy of Health*. Rutgers University Press; New Brunswick: 1995.
- Ferber, MA.; Nelson, JA. *Beyond Economic Man: Feminist Theory and Economics*. University of Chicago Press; Chicago: 1993.
- Freudenberg N. Time for a national agenda to improve the health of urban populations. *Am J Public Health* 2000;90:837–840. [PubMed: 10846496]
- Freudenberg, N.; Galea, S.; Vlahov, D. Preface. In: Freudenberg, N.; Galea, S.; Vlahov, D., editors. *Cities and the Health of the Public*. Vanderbilt University Press; Nashville: 2006. p. ix-xii.
- Freudenberg, N.; Galea, S.; Vlahov, D., editors. *Cities and the Health of the Public*. Vanderbilt University Press; Nashville: 2006.
- Frumkin, H. Cities, suburbs and urban sprawl: their impact on health. In: Galea, S.; Vlahov, D., editors. *Handbook on Urban Health*. Springer; New York: 2005.
- Frye V. Examining homicide's contribution to pregnancy-associated deaths. *JAMA* 2001;285:1510–1511. [PubMed: 11255430]
- Fullilove, MT. Fifty ways to destroy a city: undermining the social foundation of health. In: Freudenberg, N.; Galea, S.; Vlahov, D., editors. *Cities and the Health of the Public*. Vanderbilt University Press; Nashville: 2006. p. 176-193.
- Galea, S.; Freudenberg, N.; Vlahov, D. A framework for the study of urban health. In: Freudenberg, N.; Galea, S.; Vlahov, D., editors. *Cities and the Health of the Public*. Vanderbilt University Press; Nashville: 2006. p. 3-18.
- Galea, S.; Vlahov, D. Urban health: populations, methods and practice. In: Galea, S.; Vlahov, D., editors. *Handbook on Urban Health: Populations, Methods and Practice*. Springer; New York: 2005.
- Geronimus AT. To mitigate, resist, or undo: addressing structural influences on the health of urban populations. *Am J Public Health* 2000;90:867–872. [PubMed: 10846503]
- Griscom, JH. *The Sanitary Condition of the Laboring Population of New York: With Suggestions for its Improvement*. Harper; New York: 1845.
- Hammarstrom A, Ripper M. What could a feminist perspective on power bring into public health? *Scand J Public Health* 1999;27:286–289. [PubMed: 10724472]
- Haynie DL, Gorman BK. A gendered context of opportunity: determinants of poverty across urban and rural labor markets. *Sociol Q* 1999;40:177–197.
- Hubbard P. Revenge and injustice in the neoliberal city: uncovering masculinist agendas. *Antipode* 2004;36:665–686.
- Inhorn MC, Whittle KL. Feminism meets the “new” epidemiologies: toward an appraisal of antifeminist biases in epidemiological research on women's health. *Soc Sci Med* 2001;53:553–567. [PubMed: 11478536]
- Jacobs, J. *The Death and Life of Great American Cities*. Random House; New York: 1961.
- Kavanagh AM, Bentley R, Turrell G, Broom DH, Subramanian SV. Does gender modify associations between self rated health and the social and economic characteristics of local environments? *J Epidemiol Community Health* 2006;60:490–495. [PubMed: 16698978]
- Kickbusch I. The health society: the need for a theory. *J Epidemiol Community Health* 2006;60:561. [PubMed: 16790822]
- Landes JB. Further thoughts on the public/private distinction. *J Women Hist* 2003;15:28–39.
- Lewis J, Foord J. New towns and new gender relations in old industrial regions: women's employment in Peterlee and East Kilbride. *Built Environ* 1984;10:42–52.

- MacKenzie, S. Building women, building cities: toward gender sensitive theory in the environmental disciplines. In: Andrew, C.; Milroy, BM., editors. *Life Spaces*. University of British Columbia Press; Vancouver: 1988.
- Massey, D. *Space, Place and Gender*. University of Minnesota; Minneapolis: 1994.
- McDowell, L. *Gender, Identity and Place: Understanding Feminist Geographies*. Polity Press; Cambridge: 1999.
- Morenoff JD. Neighborhood mechanisms and the spatial dynamics of birth weight. *AJS* 2003;108:976–1017. [PubMed: 14560732]
- Morgen S, Maskovsky J. The anthropology of welfare reform: new perspectives on US urban poverty in the post-welfare era. *Annu Rev Anthropol* 2003;32:315–338.
- Moss NE. Gender equity and socioeconomic inequality: a framework for the patterning of women's health. *Soc Sci Med* 2002;54:649–661. [PubMed: 11999484]
- Muntaner, C.; Lynch, JW.; Smith, G. Davey Social capital and the “third way” in public health. In: Hofrichter, R., editor. *Health and Social Justice: Politics, Ideology, and Inequity in the Distribution of Disease*. Jossey Bass; San Francisco: 2003.
- Nightingale A. The nature of gender: work, gender, and the environment. *Environ Planning* 2006;24:185.
- Northridge ME, Sclar ED, Biswas P. Sorting out the connections between the built environment and health: a conceptual framework for navigating pathways and planning healthy cities. *J Urban Health* 2003;80:556–568. [PubMed: 14709705]
- Okin, SM. Gender, the public and the private. In: Phillips, A., editor. *Feminism and Politics*. Oxford University Press; Oxford: 1998.
- Pearce N. Traditional epidemiology, modern epidemiology, and public health. *Am J Public Health* 1996;86:678–683. [PubMed: 8629719]
- Peterson R, Wekerle GR, Morley D. Women and environments: an overview of an emerging field. *Women Environ* 1978;10:511–534.
- Pratt G, Hanson S. Geography and the construction of difference. *Gender Place Culture* 1994;1:5–29.
- Raphael, D.; Bryant, T. The limitations of population health as a model for a new public health. In: Hofrichter, R., editor. *Health and Social Justice*. Jossey-Bass; San Francisco: 2003.
- Ridgeway CL, Smith-Lovin L. The gender system and interaction. *Annu Rev Sociol* 1999;25:191–216.
- Shattuck, L. *Report of the Sanitary Commission of Massachusetts*. Dutton & Wentworth State Printers; Boston: 1850. others
- Slater JM, Guthrie BJ, Boyd CJ. A feminist theoretical approach to understanding health of adolescent females. *J Adolesc Health* 2001;28:443–449. [PubMed: 11377987]
- Smith N. Giuliani time: the revanchist 1990s. *Social Text* 1998;16:1–20.
- Spain, D. *Gendered Spaces*. The University of North Carolina Press; Chapel Hill: 1992.
- Spitzer DL. Engendering health disparities. *Can J Public Health* 2005;96(Suppl 2):S78–96. S78–S96. [PubMed: 16078557]
- Wekerle GR. Women in the urban environment. *Women Urban Environ* 1980;5:188–214.
- West C, Zimmerman DH. Doing gender. *Gender Society* 1987;6:125–151.
- Williams GH. The determinants of health: structure, context and agency. *Sociol Health Illn* 2003;25:131–54. 131–154. [PubMed: 14498934]
- Zierler S, Krieger N. Reframing women's risk: social inequalities and HIV infection. *Annu Rev Public Health* 1997;18:401–36. 401–436. [PubMed: 9143725]