

is fundamentally racist (Hunt 1988). The desire to see serious disease as coming from somewhere else, as an invasion, as a foreigner, is widespread (Sontag 1978, 1989; Brandt 1985). The "African origins" theory is based on many weak arguments; almost all have been disproved, including the genetic relationship of the HIV-1 virus to the simian variety of retrovirus found in the green monkey of equatorial Africa (see Gallo 1987; Mulder 1988). The "African origins" myth also arose because cases of AIDS were discovered earlier in Africa than in Europe or in North America. This argument, too, has been refuted decisively (see Carswell et al. 1986; Garry et al. 1988; Huminer, Rosenfeld, and Pitlik 1987; Hunt 1988).

One of the remaining props of the "African origins" myth is the pattern of spread of the disease in eastern, central, and southern Africa. The thesis of this paper provides an alternative explanation to the myth insofar as the myth is supported by the rapid or early spread of HIV-1 seropositivity in Africa. The historical pattern of sexually transmitted disease in eastern, central, and southern Africa is related intimately to dependency development and to migrant labor. It provides a much more adequate explanation for the rapidity and the complexities of the spread of HIV-1 seropositivity in Africa than do any assumptions about the origins of HIV-1. "African origins" theories contradict the evidence not only genetically and clinically, but also epidemiologically.

In the foregoing discussion an alternative epidemic pattern has been presented for AIDS in eastern, central, and southern Africa. This pattern has appeared in other areas where migrant labor markets were combined with dependency development and where workers were separated incompletely from the land; it has occurred, for instance, in western Africa. This pattern is rooted in migratory labor markets and is based in systematic economic, historic, and social development. Previous epidemics of STDs occurred in eastern, central, and southern Africa, resulting from the conjunction of the same historic, economic, and social factors. Those epidemics demonstrate medical/geographic and temporal patterns that are based in the movements of labor between concentrations of work and industry and the labor reserve.

The data on HIV-1 seropositivity and AIDS prevalence in Africa are sparse, scattered,

small in scale, and often inaccurate. Yet even in view of these limitations, the available data on HIV-1 seropositivity and AIDS surveillance and testing in eastern, southern, and central Africa support the historical pattern and the labor market relationship in the AIDS epidemic now ravaging Africa. The highest prevalence rates of AIDS and HIV-1 seropositivity occur in the concentrations of industry and development in Uganda. In the rural labor reserves, particularly in Burundi, Rwanda, and southwestern Uganda, very high prevalence rates of HIV-1 seropositivity and AIDS also occur, but those rates are not as high as in the industrial and developed areas. Labor reserves in parts of Uganda where prevalence rates of seropositivity and AIDS are low show isolation from traditional labor migration because of war and social disruption over the last decade. The general rate of rural infection in eastern, southern, and central Africa is quite low.

There is some evidence of high rates of HIV-1 seropositivity among migrant laborers themselves. Certainly, prostitutes have very high rates of seropositivity and AIDS, as would be expected by most social theories of STDs. Further, those who suffered from previous STDs appear more likely to contract HIV-1 seropositivity and therefore AIDS. This interaction in the AIDS epidemic reinforces the historic patterns of STDs already occurring in this region in Africa.

In conclusion, the epidemic of HIV-1 seropositivity in Uganda and in other countries of the area is a social event, not simply a biological occurrence (see Stark 1977). Although a biological understanding of HIV-1 is necessary, it is inadequate. The epidemic of HIV-1 seropositivity and AIDS in Africa must be understood socially, in its historically specific context, or not at all.

## REFERENCES

- Altman, Dennis. 1986. *AIDS in the Mind of America*. Garden City, NY: Anchor/Doubleday.
- Amin, Samir. 1976. *Unequal Development: An Essay on the Social Formations of Peripheral Capitalism*. New York: Monthly Review Press.
- Anderson, R.M., R.M. May, and A.R. McLean. 1988. "Possible Demographic Consequences of AIDS in Developing Countries." *Nature*, March: 228.
- Avirgan, Tony and Martha Honey. 1982. *War in Uganda: The Legacy of Idi Amin*. Westport, CT: Lawrence Hill.



- Becker, W.B. 1986. "HTLV-III Infection in the RSA." *South African Medical Journal Supplement*, October 11:26-27.
- Bennett, F.J. 1962. "The Social Determinants of Gonorrhea in an East African Town." *East African Medicine* 39(6):332-42.
- . 1964. "Gonorrhea: A Rural Pattern of Transmission." *East African Medical Journal* 41(4):163-67.
- . 1975. "Venereal Disease and Other Spirochaetal Diseases." Pp. 64-65 in *Uganda Atlas of Disease Distribution*, edited by S.A. Hall and B.W. Langlands. Nairobi: East African Publishing House.
- Berkley, Seth, Samuel Okware, and Warren Naamara. 1989. "Surveillance for AIDS in Uganda." *AIDS* 3:79-85.
- Biggar, Robert J. 1986. "The AIDS Problem in Africa." *Lancet*, January 11:79-83.
- . 1987. "AIDS in Sub-Saharan Africa." *Cancer Detection and Prevention Supplement* 1:487-91.
- Biggar, Robert J., Mads Melbye, Prem S. Sarin, Paul Demedts, Charles Delacollette, Wim J. Stevens, Paul L. Gigase, Luc Kestens, Anne J. Bodner, Leopold Paluku, and William A. Blattner. 1985. "ELISA HTLV Retrovirus Antibody Reactivity Associated with Malaria and Immune Complexes in Healthy Africans." *Lancet*, September 7:520-23.
- Brandt, Allan M. 1985. *No Magic Bullet: A Social History of Venereal Disease in the United States since 1880*. New York: Oxford University Press.
- Brown, Stuart T., Fernando R.K. Zacarias, and Sevgi O Aral. 1985. "STD Control in Less Developed Countries: The Time Is Now." *International Journal of Epidemiology* 14(4):505-509.
- Brunet, J.B. and R.A. Ancelle. 1985. "The International Occurrence of the Acquired Immunodeficiency Syndrome." *Annals of Internal Medicine* 103(5):670-74.
- Carael, Michel, Philippe H. Van de Perre, Philippe H. Lepage, Susan Allen, Francois Nsenquimuremyi, Christian Van Goethem, Melanie Ntahorutaba, Didace Nzaramba and Nathan Clumeck. 1988. "Human Immunodeficiency Virus Transmission Among Heterosexual Couples in Central Africa." *AIDS* 2:201-205.
- Carswell, J. Wilson. 1987. "HIV Infection in Healthy Persons in Uganda." *AIDS* 1(4):223-27.
- Carswell, J. Wilson, N. Sewankambo, G. Lloyd, and R.G. Downing. 1986. "How Long Has the AIDS Virus Been in Uganda?" *Lancet*, May 24:1217.
- Chavkin, Wendy (ed.). 1984. *Double Exposure: Women's Health Hazards on the Job and at Home*. New York: Monthly Review Press.
- Clumeck, Nathan, Marjorie Robert-Guroff, Philippe Van de Perre, Andrea Jennings, Jean Sibomana, Patrick Demol, Sophie Cran, and Robert C. Gallo. 1985. "Seroepidemiological Studies of HTLV-III Antibody Prevalence among Selected Groups of Heterosexual Africans." *Journal of the American Medical Association* 254(18):2599-2602.
- Crush, Jonathan. 1984. "Uneven Labour Migration in Southern Africa: Conceptions and Misconceptions." *South African Geographical Journal* 66(2):115-32.
- Curran, James W. 1985. "The Epidemiology and Prevention of the Acquired Immunodeficiency Syndrome." *Annals of Internal Medicine* 103(5):657-62.
- Curran, James W., Meade Morgan, A.M. Hardy, H.W. Jaffe, W.M. Darrow, and W.R. Dowdle. 1985. "The Epidemiology of AIDS: Current Status and Future Prospects." *Science* 229:1352-57.
- Davidson, Basil. 1983. *Modern Africa*. New York: Longmans.
- Day, Sophie. 1988. "Prostitute Women and AIDS: Anthropology." *AIDS* 2:421-28.
- DeLancey, Mark W. 1978. "Health and Disease on the Plantations of Cameroon, 1884-1939." Pp. 151-79 in *Disease in African History: An Introductory Survey and Case Studies*, edited by Gerald W. Hartwig and K. David Patterson. Durham: Duke University Press.
- Doyal, Lesley, with Immogen Pennell. 1981. *The Political Economy of Health*. Boston: South End Press.
- Economist. 1987. "In the Heart of the Plague." *The Economist*, March 21-27:45.
- Epstein, Paul, and Randall Packard. 1987. "Ecology & Immunity." *Science for the People*, Jan/Feb:10-17.
- Epstein, Samuel S. 1976. "The Political and Economic Basis of Cancer." *Technology Review* 78:1-7.
- . 1978. *The Politics of Cancer*. San Francisco: Sierra Club Books.
- Eyer, Joseph. 1975. "Hypertension as a Disease of Modern Society." *International Journal of Health Services* 5(4):539-58.
- . 1977. "Prosperity as a Cause of Death." *International Journal of Health Services* 7:125-50.
- Eyer, Joseph and Peter Sterling. 1977. "Stress-Related Mortality and Social Organization." *Review of Radical Political Economy* 8(1):1-44.
- Foster, John Bellamy. 1986. *The Theory of Monopoly Capitalism: An Elaboration of Marxian Political Economy*. New York: Monthly Review Press.
- Frank, Andre G. 1967. *Capitalism and Underdevelopment in Latin America*. New York: Monthly Review Press.
- Freund, William. 1984. *The Making of Contemporary Africa: The Development of African Society*



- since 1800. Bloomington: University of Indiana Press.
- . 1988. *The African Worker*. New York: Cambridge University Press.
- Friedman, Kathie. 1984. "Households as Income-Pooling Units." Pp. 37–55 in *Households and the World Economy*, edited by Joan Smith, Immanuel Wallerstein, and Hans-Dieter Evers. Beverly Hills: Sage.
- Gallo, Robert C. 1987. "The AIDS Virus." *Scientific American* 256(1):46–56.
- Garry, Robert F., Marlys H. Witte, A. Arthur Gottlieb, Memory Elvin-Lewis, Marise S. Gottlieb, Charles L. Witte, Steve S. Alexander, William R. Cole, and William L. Drake. 1988. "Documentation of an AIDS Virus Infection in the United States in 1968." *Journal of the American Medical Association* 260(14): 2085–87.
- Georges, Alain J., Paul M.V. Martin, Jean-Paul Gonzalez, Daniele Salaun, Christian C. Mathiot, Gerard Grezenguet, and Marie-Claude Georges-Courbot. 1987. "HIV-1 Seroprevalence and AIDS Diagnostic Criteria in Central African Republic." *Lancet*, December 5:1732–33.
- Gimui, Kiboma. 1982. "Spatial Inequalities and Population Redistribution with Reference to Uganda." Pp. 146–49 in *Redistribution of Population in Africa*, edited by John I. Clarke and Leszek A. Kosinski. London: Heinemann.
- Gugler, Josef. 1968. "The Impact of Labor Migration on Society and Economy in Sub-Saharan Africa: Empirical Findings and Theoretical Considerations." *African Social Research*, December 6:463–86.
- Gutkind, Peter C.W. and Immanuel Wallerstein. 1976. *The Political Economy of Contemporary Africa*. Beverly Hills: Sage.
- Hall, S.A. and B.W. Langlands. 1975. *Uganda Atlas of Disease Distribution*. Nairobi: East African Publishing House.
- Harden, Blaine. 1986. "Uganda Battles AIDS Epidemic." *Washington Post*, June 2:A1, A18.
- . 1987. "AIDS Seen as Threat to Africa's Future." *Washington Post*, May 31:A1, A18.
- Hilts, Philip J. 1987. *Washington Post*, "AIDS Takes Heavy Toll of African Children." October 10:A6
- Hooper, Ed. 1987. "AIDS in Uganda." *African Affairs* 86(345):469–77.
- Hopper, K. and Sally Guttmacher. 1979. "Rethinking Suicide: Notes toward a Critical Epidemiology." *International Journal of Health Services* 9:417–38.
- Hudson, Christopher P., Anselm J.M. Hennis, Peter Kataaha, Graham Lloyd, A. Timothy Moore, Gordon M. Sutehall, Rod Whetstone, Tim Wreghitt and Abraham Karpas. 1988. "Risk Factors for the Spread of AIDS in Rural Africa: Evidence from a Comparative Seroepidemiological Survey of AIDS, Hepatitis B and Syphilis in Southwestern Uganda." *AIDS*. 2: 255–60.
- Hummer, David, Joseph B. Rosenfeld, and Silvio D. Pitlik. 1987. "AIDS in the Pre-AIDS Era." *Reviews of Infectious Diseases* 9(6):1102–1108.
- Hunt, Charles W. 1988. "Africa and AIDS: Dependent Development, Sexism and Racism." *Monthly Review* 39(9):10–22.
- Hunter, John M. (ed.). 1974. *The Geography of Health and Disease*. Chapel Hill: University of North Carolina, Department of Geography.
- Ijsselmuiden, C.B., M.H. Steinberg, G.N. Padayachee, B.D. Schoub, S.A. Strauss, E. Buch, J.C.A. Davies, C. DeBeer, J.S.S. Gear, and H.S. Hurwitz. 1988. "AIDS and South Africa—Towards a Comprehensive Strategy. Part I, Part II, and Part III." *South African Medical Journal* (73):461–64.
- Kabera, John B. 1982. "Rural Population Redistribution in Uganda since 1900." Pp. 192–201 in *Redistribution of Population in Africa*, edited by John I. Clarke and Leszek A. Kosinski. London: Heinemann.
- Karugire, S.R. 1980. *A Political History of Uganda*. Nairobi: Heinemann.
- Kay, George. 1967. *A Social Geography of Zambia*. London: University of London Press.
- Kibukamusoke, J.W. 1975. "Diseases of the Genito-Urinary System." Pp. 121–24 in *Uganda Atlas of Disease Distribution*, edited by S.A. Hall and B.W. Langlands. Nairobi: East African Publishing House.
- Konotey-Ahulu, Felix I.D. 1987. "AIDS in Africa: Misinformation and Disinformation." *Lancet*, July 25:206–207.
- Kreiss, Joan K. 1986. "AIDS Virus Infection in Nairobi Prostitutes: Spread of the Epidemic to East Africa." *New England Journal of Medicine* 314(7):414–18.
- Langlands, B.W. 1975. "Introduction: The Geographic Basis to the Pattern of Disease in Uganda." Pp. 1–10 in *Uganda Atlas of Disease Distribution*, edited by S.A. Hall and B.W. Langlands. Nairobi: East African Publishing House.
- Leys, Colin. 1975. *Underdevelopment in Kenya: The Political Economy of Neo-Colonialism*. Los Angeles: University of California Press.
- Leys, R. 1974. "South African Gold Mining in 1974: 'The Gold of Migrant Labour.'" *African Affairs* 74 (295):196–208.
- Loewenson, Rene. 1988. "Labour Insecurity and Health: An Epidemiological Study in Zimbabwe." *Social Science and Medicine* 27(7): 733–41.
- Mamdani, Mahmood. 1976. *Politics and Class Formation in Uganda*. New York: Monthly Review Press.
- . 1988. "Uganda in Transition: Two Years of the NRA/NRM." *Third World Quarterly* 10(3):1155–81.



- Mann, Jonathan and James Chin. 1988. "AIDS: A Global Perspective." *New England Journal of Medicine* 319(5):302-303.
- Mann, Jonathan M., James Chin, Peter Piot, and Thomas Quinn. 1988. "The International Epidemiology of AIDS." *Scientific American* 259(4): 82-89.
- Mann, Jonathan M., Henry Francis, Farzin Davachi, Paola Baudoux, Thomas C. Quinn, Nzila Nzilambi, Ngaly Bosenge, Robert L. Colebunders, Peter Piot, Ndoko Kabote, Pangu Kaza Asila, Miatudila Malonga, and James W. Curran. 1986. "Risk Factors for Human Immunodeficiency Virus Seropositivity among Children 1-24 Months Old in Kinshasa, Zaire." *Lancet*, September 20:654-56.
- Mann, Jonathan M., Henry Francis, Thomas Quinn, Pangu Kaza Asila, Ngaly Bosenge, Nzila Nzilambi, Kapita Bila, Muyembe Tamfum, Kalisa Ruti, Peter Piot, Joseph McCormick, and James W. Curran. 1986. "Surveillance for AIDS in a Central African City." *Journal of the American Medical Association* 255(23):3255-59.
- Martin, William G. 1984. "Beyond the Peasant and Proletarian Debate: African Household Formation in South Africa." Pp. 151-67 in *Households and the World Economy*, edited by Joan Smith, Immanuel Wallerstein, and Hans-Dieter Evers. Beverly Hills: Sage.
- Mayer, Jonathan D. 1988. "Migrant Studies and Medical Geography: Conceptual Problems and Methodological Issues." Pp. 136-54 in *Conceptual and Methodological Issues in Medical Geography*, edited by Melinda S. Meade. Chapel Hill: University of North Carolina, Department of Geography.
- McCance, R.A. and I.H.E. Rutishauser. 1975. "Childhood Malnutrition." Pp. 89-92 in *Uganda Atlas of Disease Distribution*, edited by S.A. Hall and B.W. Langlands. Nairobi: East African Publishing House.
- McGlashan, N.D. (ed.). 1972. *Medical Geography: Techniques and Field Studies*. New York: Harper and Row.
- Meade, Melinda S. (ed.). 1980. *Conceptual and Methodological Issues in Medical Geography*. Chapel Hill: University of North Carolina, Department of Geography.
- Melbye, Mads, Anne Bayley, J.K. Manuwele, Susan A. Clayden, William A. Blattner, Richard Tedder, E.K. Njelesani, K. Mukelabai, F.J. Bowa, Arthur Levin, Robin A. Weiss, and Robert J. Biggar. 1986. "Evidence for Heterosexual Transmission and Clinical Manifestations of Human Immunodeficiency Virus Infection and Related Conditions in Lusaka, Zambia." *Lancet*, November 15:1113-15.
- Moodie, T. Dunbar. 1988. "Migrancy and Male Sexuality in the South African Gold Mines." *Journal of Southern African Studies* 14(2): 228-56.
- Mugerwa, R. and G. Giraldo. 1987. "Some Clinical Aspects of AIDS in Uganda." Paper presented at Second International Symposium on AIDS and Associated Cancers in Africa, Naples. Abstract S.3.2.
- Mugerwa, R., R. Widy-Wirski, and S. Okwake. 1987. "Assessment of a Provisional WHO Clinical Case-Definition of HIV Related Illness in the Referral Hospital of Uganda." Paper presented at Second International Symposium on AIDS and Associated Cancers in Africa, Naples. Abstract TH-89.
- Mulder, Carel. 1988. "Human AIDS Virus Not from Monkeys." *Nature* (333):396.
- Murray, Colin. 1977. "High Bridewealth, Migrant Labour and the Position of Women in Lesotho." *Journal of African Law* 21 (1):79-96.
- . 1980. "Migrant Labour and the Changing Family Structure in the Rural Periphery of South Africa." *Journal of Southern African Studies* 6(2):139-56.
- . 1981. *Families Divided: The Impact of Migrant Labour in Lesotho*. Cambridge: Cambridge University Press.
- Navarro, Vincente. 1974. "The Underdevelopment of Health or the Health of Underdevelopment." *Politics and Society*, Winter:267-93.
- . 1982. "The Labor Process and Health: A Historical Materialist Interpretation." *International Journal of Health Services* 12(1):5-29.
- Navarro, Vincente and Daniel M. Berman (eds.). 1983. *Health and Work under Capitalism: An International Perspective*. Farmingdale, NY: Baywood.
- Norman, Colin. 1985. "Politics and Science Clash on African AIDS." *Science* 230:1140-42.
- Nzilambi, Nzila, Kevin M. DeCock, Donald N. Forthal, Henry Francis, Robert W. Ryder, Ismey Malebe, Jane Getchell, Marie Laga, Peter Piot, and Joseph B. McCormick. 1988. "The Prevalence of Infection with Human Immunodeficiency Virus over a 10-year Period in Rural Zaire." *New England Journal of Medicine* 318(5):276-79.
- Osoba, A.O. 1981. "Sexually Transmitted Diseases in Tropical Africa." *British Journal of Venereal Disease* 57:89-94.
- Padian, Nancy S. 1988. "Prostitute Women and AIDS: Epidemiology." *AIDS*. 2:413-419.
- Parker, Richard. "Acquired Immunodeficiency Syndrome in Urban Brazil." *Medical Anthropology Quarterly* 1(2):155-75.
- Parpart, Jane L. 1983. *Labor and Capital on the African Copperbelt*. Philadelphia: Temple University Press.
- Pepin, Jacques, Francis A. Plummer, Robert C. Brunham, Peter Piot, D. William Cameron, and Allan R. Ronald. 1989. "The Interaction of HIV Infection and Other Sexually Transmitted Dis-



- eases: An Opportunity for Intervention." *AIDS* 3:3-9.
- Peterson, Hans D., Bjarne O. Lindhardt, Peter M. Nyarango, Tula R. Bowry, Alex K. Chemtal, Kim Krogsgaard, and Albert Bunyasi. 1987. "A Prevalence Study of HIV Antibodies in Rural Kenya." *Scandinavian Journal of Infectious Diseases* 19:395-401.
- Piot, Peter, Francis A. Plummer, Fred S. Mhalu, Jean-Louis Lamboray, James Chin, and Jonathan Mann. 1988. "AIDS: An International Perspective." *Science* 239:573-79.
- Prothero, R. Mansell. 1977. "Disease and Mobility: A Neglected Factor in Epidemiology." *International Journal of Epidemiology* 3(6):259-67.
- . 1983. "Medical Geography of Tropical Africa." Pp. 137-53 in *Geographical Aspects of Health*, edited by N.D. McGlashan and J.R. Blunden. San Francisco: Academic Press.
- Pyle, Gerald F. 1979. *Applied Medical Geography*. New York: Wiley.
- Quinn, Thomas C. 1987. "AIDS in Africa: Evidence for Heterosexual Transmission of the Human Immunodeficiency Virus." *New York State Journal of Medicine* (May):286-89.
- Quinn, Thomas C., Jonathan M. Mann, James W. Curran, and Peter Piot. 1986. "AIDS in Africa: An Epidemiological Paradigm." *Science* 234: 955-63.
- Rampen, F., 1978. "Venereal Syphilis in Tropical Africa." *British Journal of Venereal Disease* (54):364-68.
- Ratnam, Attili V., Shahida N. Din, Subhash K. Hira, Ganapati J. Bhat, D.S.O. Wacha, A. Rukmini, and Raphael C. Mulenga. 1982. "Syphilis in Pregnant Women in Zambia." *British Journal of Venereal Disease* 58:355-58.
- Recene, U., S. Orach, and A. Petti. 1987. "HTLV III-TB Association in Northern Uganda (Gulu District)." Paper presented at Second International Conference on AIDS and Associated Cancers in Africa, Naples. Abstract TH-80.
- Roberts, A. 1979. *A History of Zambia*. New York: Africana.
- Rodney, Walter. 1982. *How Europe Underdeveloped Africa*. Washington, DC: Howard University Press.
- Sajiwandani, Jonathan and K.S. Babbo. "Sexually Transmitted Diseases in Zambia." 1987. *Journal of the Royal Society of Health* 5:183-86.
- Sanders, David and Rob Davies. 1988. "The Economy, the Health Sector and Child Health in Zimbabwe since Independence." *Social Science and Medicine* 27(7):723-31.
- Sathyamurthy, T.V. 1986. *The Political Development of Uganda: 1900-1986*. Brookfield, VT: Gower.
- Saul, John S. and Giovanni Arrighi. 1973. *Essays on the Political Economy of Africa*. New York: Monthly Review Press.
- Schall, Peter L. and Rochelle Kern. 1986. "Hypertension in American Society: An Introduction to Historical Materialist Epidemiology." Pp. 73-89 in *The Sociology of Health and Illness: Critical Perspectives*. 2nd ed., edited by Peter Conrad and Rochelle Kern. New York: St. Martin's.
- Schoub, B.D., A.N. Smith, S.F. Lyons, S. Johnson, D.J. Martin, G. McGillivray, G.N. Padayachee, S. Naidoo, E.L. Fisher, and H.S. Hurwitz. 1988. "Epidemiological Considerations of the Present Status and Future Growth of the Acquired Immunodeficiency Syndrome Epidemic in South Africa." *South African Medical Journal* 74:153-57.
- Serwadda, D., N.K. Sewankambo, J.W. Carswell, A.C. Bayley, R.S. Tedder, R.A. Weiss, R.D. Mugerwa, A. Lwegaba, G.B. Kirya, R.G. Downing, S.A. Clayden, and A.G. Dalgleish. 1985. "Slim Disease: A New Disease in Uganda and Its Association with HTLV-III Infection." *Lancet*, October 19:849-52.
- Sher, R. 1986. "Acquired Immune Deficiency Syndrome (AIDS) in the RSA." *South African Medical Journal Supplement*, October 11: 23-26.
- Shilts, Randy. 1987. *And the Band Played On: Politics, People, and the AIDS Epidemic*. New York: Penguin.
- Simonsen, J. Neil. 1988. "Human Immunodeficiency Virus Infection among Men with Sexually Transmitted Diseases: Experience from a Center in Africa." *New England Journal of Medicine* 319(5):1274-78.
- Smith, Barbara E. 1981. "Black Lung: The Social Production of Disease." *International Journal of Health Services* 11(3):343-59.
- Smith, Joan. 1984. "Nonwage Labor and Subsistence." Pp. 64-89 in *Households and the World Economy*, edited by Joan Smith, Immanuel Wallerstein, and Hans-Dieter Evers. Beverly Hills: Sage.
- Sontag, Susan. 1978. *Illness as Metaphor*. New York: Farrar, Straus, and Giroux.
- . 1988. *AIDS and Its Metaphors*. New York: Farrar, Straus, and Giroux.
- Specter, Michael. 1986. "AIDS Infection and Birth Control Pills." *The Washington Post*, May 31:A18.
- Stamm, Walter E., H. Hunter Handsfield, Anne M. Rompalo, Rhoda L. Ashley, Pacita L. Roberts, and Lawrence Corey. 1988. "The Association between Genital Ulcer Disease and Acquisition of HIV Infection in Homosexual Men." *Journal of the American Medical Association* 260(10):1429-33.
- Stark, Evan. 1977. "The Epidemic as a Social Event." *International Journal of Health Services* 7(4):681-705.
- Stichter, Sharon. 1985. *Migrant Laborers*. New York: Cambridge University Press.
- Turshen, Meredith. 1977. "The Impact of Colo-

- nialism on Health and Health Services in Tanzania." *International Journal of Health Services* 7:7-35.
- . 1984. *The Political Ecology of Disease in Tanzania*. New Brunswick: Rutgers University Press.
- Van de Perre, Philippe. 1984. "Acquired Immunodeficiency Syndrome in Rwanda." *Lancet*, July 14:62-69.
- Vaughn, Megan and Henrietta Moore. 1988. "Health, Nutrition and Agricultural Development in Northern Zambia." *Social Science and Medicine* 27(7):743-45.
- Verhagen, A.R. and W. Gemert. 1972. "Social and Epidemiological Determinants of Gonorrhea in an East African Country." *British Review of Venereal Disease* 27(48):277-86.
- Waitzkin, Howard. 1978. "A Marxist View of Medical Care." *Annals of Internal Medicine* (89):264-78.
- . 1983. *The Second Sickness: Contradictions of Capitalist Health Care*. New York: Free Press.
- Waldron, Ingrid. 1986. "Why Do Women Live Longer than Men?" Pp. 34-44 in *The Sociology of Health and Illness*, edited by Peter Conrad and Rochelle Kern. New York: St. Martin's.
- Waldron, Ingrid and J. Eyer. 1975. "Socioeconomic Causes of the Recent Rise in Death Rates for 15-24 Year Olds." *Social Science and Medicine* (9):383-96.
- Wallerstein, Immanuel. 1984. "Household Structures and Labor-Force Formation in the Capitalist World-Economy." Pp. 17-22 in *Households and the World Economy*, edited by Joan Smith, Immanuel Wallerstein, and Hans-Dieter Evers. Beverly Hills: Sage.
- Wallerstein, Immanuel and William G. Martin. 1979. "Peripheralization of Southern Africa: Changes in Household Structure and Labor-Force Formation." *Review* III(2):325-71.
- Wender, I., J. Schneider, B. Gras, A.F. Fleming, G. Hunsmann, and H. Schmitz. 1986. "Seroepidemiology of Human Immunodeficiency Virus in Africa." *British Medical Journal* 293: 782-85.
- White, Richard. 1978. *Africa: Geographic Studies*. London: Heinemann.
- World Health Organization (WHO). 1988. "A Global Response to AIDS." *Africa Report*, November-December:13-16.
- World Health Organization (WHO). 1989. "Statistics from the World Health Organization and the Centers for Disease Control." *AIDS*. 3:113-17.

**CHARLES W. HUNT** is a graduate student and graduate teaching fellow at the University of Oregon, Eugene. His current research is in Medical Sociology and AIDS Epidemiology. He also works in the areas of political economy, sociology of developing countries, and social movements.