

# The Intersections between Socioeconomic Structures, Life Course and HIV/AIDS Adherence Behaviors

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Since the concept of health as a dynamic process that influences the physical, psychological and social functioning of people [1,2] it has been considered that diseases, health and well-being are related to risks corresponding to social systems and socioeconomic structures [3], and are evident throughout people's entire lives [4]. In this way the life course approach is necessary to understand health variations [5].

Blane and colleagues have stated that social factors are literally "embodied" and that the body remembers the past and accumulates social advantages and disadvantages. In fact, numerous studies show the influence of life course in the health outcomes of prevalent diseases on the worldwide level [6]. The evidence indicates that a relation exists between morbidity, mortality and accumulated exposure to low socioeconomic positions [7,8]. Citing some examples, an association has been found between increasing levels of socioeconomic disadvantage over the life course, coronary heart disease [9,10], and myocardial infarction [8]. In the Chinese population significant differences have been reported in the average health level of the population due to variations in socioeconomic status, education and income level throughout life [11]. In Afro-Americans it has been found that financial strain in childhood and adulthood increases the probability of having physical disability and more symptoms of depression in comparison to those who have not suffered such tension [12]. Data about middle-aged Finnish men indicate that harmful psychosocial behaviors and dispositions to health in adults are consistently related to limited conditions in infancy, low levels of education and blue-collar employment [13]. In smokers, it has been found that socioeconomic conditions in the life course are accumulated and related to heavier smoking and a lower rate of giving up cigarettes in people in the lowest socioeconomic levels [14].

Under the perspective of the life course approach, macropathways and micropathways to explain the way various determinants interact to produce different health behaviors have been described [15]. The macropathways represent the interactions between economic, social, physical and cultural environments of a determined social structure which form or modify health related behaviors. The micropathways explain how information coming from social relations, environmental exposure and historical events in the life course, is information that affects biological, psychological and behavioral systems of an organism. In these ways, different trajectories are the product of accumulated risks and other influences that programmed into bio-behavioral systems across the life course [15]. These outcomes are reflected cross-sectionally when the advantages and disadvantages in a life sphere accompany similar advantages and disadvantages in other spheres. But they are also longitudinally reflected due to the organization and social structure where people live; that is to say that the advantages and disadvantages of one phase of the life course is "likely to have been preceded by and to be succeeded by similar advantage or disadvantage in other phases of life" [6].

The life course approach lay in that it can help understand and explain results in the biological, psychological and behavioral systems directly related to adherence to treatment in HIV/AIDS. Much has been reported in traditional literature on the association between

psychological factors and adherence, but little has been connected in the focus of trajectories across the life course. This approach could be useful in the HIV/AIDS field to explain the form in which the adherence behaviors are not isolated, but on the contrary, can be the result of trajectories that people face all their lives. In particular, the *socioeconomic life course approach* permits recognition of the complex forms that interact in the distinct economic, social and psychological determinants in confronting a chronic disease, such as HIV. In fact, some studies in Latin America have demonstrated different adherence behaviors resulting from diverse social positions among women living with the virus [16,17,18].

In any case, much about the mechanisms and determinants of adherence in HIV from the life course framework is not yet understood, and future research should include more integrative longitudinal studies, which explore not only behavioral and psychosocial pathways but also the physiological pathways and the associated immune system mechanisms.

## References

1. Engle GL (1977) The need for a new medical model: A challenge for biomedicine. *Science* 196: 129-136.
2. Evans RG (1994) Health care as a threat to health: Defense, opulence and the social environment. *Daedalus* 123: 21-42.
3. Singer BH, Ryff CD (2001) *New Horizons in Health: An Integrative Approach*. Washington DC: National Academy Press.
4. Keating DP, Hertzman C (1999) *Developmental Health and the Wealth of Nations: Social, Biological and Educational Dynamics*. New York: Guilford Press.
5. Bartley M, Blane D, Montgomery S (1997) Health and the life course: why safety nets matter. *BMJ* 314: 1194-1196.
6. Blane D (1999) The life course, the social gradient, and health. In M. Marmot and R.G. Wilkinson. *Social Determinants of Health* (pp. 64-80). Great Britain: Oxford University Press.
7. Kuh D, Ben-Shlomo Y, Lynch J, Hallqvist J, Power C (2003) Life course epidemiology. *J Epidemiol Community Health* 57: 778-783.
8. Ljung R, Hallqvist J (2006) Accumulation of adverse socioeconomic position over the entire life course and the risk of myocardial infarction among men and women: results from the Stockholm Heart Epidemiology Program (SHEEP). *J Epidemiol Community Health* 60: 1080-1084.

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9. Singh-Manoux A, Ferrie JE, Chandola T, Marmot M (2004) Socioeconomic trajectories across the life course and health outcomes in midlife: evidence for the accumulation hypothesis? *Int J Epidemiol* 33: 1072-1079.
10. Loucksa EB, Pilotec L, Lynchd JW, Richard H, Almeida ND, et al. (2010) Life course, socioeconomic position is associated with inflammatory markers: The Framingham Offspring Study. *Soc Sci Med* 71: 187-195.
11. Chen F, Yang Y, Liu G (2010) Social Change and Socioeconomic Disparities in Health over the Life Course in China: A Cohort Analysis. *Am Sociol Rev* 75: 126-150.
12. Szanton SL, Thorpe RJ, Whitfield K (2010) Life-course financial strain and health in African-Americans. *Soc Sci Med* 71: 259-265.
13. Lynch JW, Kaplan GA, Salonen JT (1997) Why do poor people behave poorly? Variation in adult health behaviours and psychosocial characteristics by stages of the socioeconomic lifecourse. *Soc Sci Med* 44: 809-819.
14. Gilman SE, Abrams DB, Buka SL (2003) Socioeconomic status over the life course and stages of cigarette use: initiation, regular use, and cessation. *J Epidemiol Community Health* 57: 802-808.
15. Halfon N, Hochstein M (2002) Life course health development: an integrated framework for integrated health, policy, and research. *Milbank Q* 80: 433-479.
16. Arrivillaga M, Ross M, Useche B, Alzate ML, Correa D (2009) Social position, gender role, and treatment adherence among Colombian women living with HIV/AIDS: social determinants of health approach. *Rev Panam Salud Publica* 26: 502-510.
17. Arrivillaga M, Springer AE, Lopera M, Correa D, Useche B, et al. (2012) HIV/AIDS treatment adherence in economically better off women in Colombia. *AIDS Care*.
18. Arrivillaga M, Ross M, Useche B, Springer A, Correa D (2011) Applying an expanded social determinant approach to the concept of adherence to treatment: The case of Colombian women living with HIV/AIDS. *Womens Health Issues* 21: 177-183.