**The following is my dissertation introductory chapter. I am finishing the dissertation in December of this year (2003). This chapter serves as my 'extended abstract' so that you can have a better grasp of the issues pertaining to my research paper that I would like to present at next year's PAA meeting.

INTRODUCTION

Conceptualization of the Problem

The research problem for this study is the rural-urban gap in child health outcomes in four contiguous sub-Saharan Africa countries (Kenya, Tanzania, Zambia, and Zimbabwe). All four countries have experienced rapid growth in their urban populations without matching economic growth. In a scenario such as this one, urbanization outpaces the sustainable delivery of services in public health and social services sectors (UN 2001a). Several studies have shown better health outcomes in urban than rural areas (Anker and Knowles 1980; Brockerhoff 1990, 1994, 2000; Hill and Pebley 1989; Ikamari 1995; Laidlaw and Stockwell 1979; Sastry 1997; UN 1985; Williams and Galley 1995). This study uses Demographic and Health Survey (DHS) data to examine and explain rural-urban differences in infant health outcomes.

Present-day urbanization in less developed countries (LDCs) is taking place under different conditions than those present when more developed countries (MDCs) became urbanized. Because of this, it is not clear that rapid urbanization in LDCs results in better child health outcomes. The present investigation revisits the relationship between urbanization and child health in the context of current challenges faced by cities in LDCs. The key elements in the conceptual model of this study include

place of residence (rural versus urban), development, and health and mortality outcomes for children ages 0 to 5 years.

Embedded in the question of *how* economic development affects the relationship between urbanization and child health outcomes is the question of *what* explains or underlies the relationship between place of residence and health. Brockerhoff (1990, 1994) finds that mothers who migrate from rural to urban areas improve the survival chances of their children. This is consistent with the prevalent idea in demographic literature that urbanization is associated with advances in health (Weeks 1999). The proposition is based on the assumption that urbanization occurs in the context of increasing industrialization or modernization.

According to Brockerhoff (1994), child survival is improved by a rural-to-urban move due to the "modern health and social services, income-earning opportunities, superior housing, stable food supplies, and modern information on child health care in urban areas" (p.127). In addition to the immediate physical environment and the availability of social services, the association between residence and health may also be the result of the broader social environment in which the child's parents were raised. For example, parents' education or norms about dealing with illness are largely a product of the social environment (Mosley and Chen 1984).

Although in migration literature a wide variety of origin and/or destination areas can be distinguished, the rural/urban dichotomy is often used. This demarcation can be expanded to create four types of internal migrants: rural-rural, rural-urban, urban-rural, and urban-urban. Based on this conceptual breakdown, two approaches

can thus be identified to explain the health outcome differentials. One approach for teasing apart these explanations is to examine child health outcomes for only rural-urban migrants, the migrants often viewed as benefiting the most. The other approach, which is both more inclusive and exhaustive, compares child health outcomes across six types of internal migrants and nonmigrants: rural and urban nonmigrants, rural-rural, rural-urban, urban-rural, and urban-urban migrants. This study uses the latter approach.

According to Tarver (1996), internal migration has exerted a profound influence on urbanization in Africa and has resulted in an increase in the number of city residents. Consequently, rural-urban migration is identified as one of the key determinants of the high rates of urbanization in less developed countries, especially the sub-Saharan region. However, data from the Demographic and Health Surveys (DHS) indicate that the majority of internal migration moves in the four sub-Sahara African countries are rural-rural moves (National Council for Population and Development [Kenya] 1999, National Bureau of Statistics [Tanzania] 2000, Central Statistical Office [Zambia] 1997, and Central Statistical Office [Zimbabwe] 2000). Van Dijk, Foeken, and van Til (2001) conclude that despite the predominant attention that rural-urban migration has received in the literature, rural-rural migration is historically and currently much more widespread in sub-Saharan Africa.

This study contributes to demography literature by investigating child health outcomes for the six types of migrants and nonmigrants and by assessing whether migration between rural and/or urban areas brings about better health outcomes.

Further, this study seeks to explain differences in health outcomes in order to see the extent to which these differences in health outcomes can be explained by the child and mother's current environment and social background.

Another contribution of this investigation is the adoption of a competing risks model of health outcome. This is in line with the reasoning provided by Mosley and Chen (1984) who argue that death is usually the result of cumulative consequences of multiple disease processes. They also argue that when studying health outcomes, one should construct a health index with death as the final outcome. In this study, anthropometric measures[1] are used as proxies in estimating 'growth-faltering' as part of a health outcome index.

Several positions have argued against the exclusive focus on death or chances of survival. Santow (1997) argues that the preoccupation with death distracts from understanding quality of life issues. Riley (1989) posits that the sicknesses of people who die do not show that ill health prevails among the people who survive. There is also mounting evidence that adverse conditions in childhood may be reflected years later in elevated rates of adult mortality (Elo and Preston 1992, Fogel 1997).

<u>Relevance of Study to Population Issues</u>

There are several reasons why this research is of significance to population issues and public health policies.

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[1] In this study, anthropometric measures are the anatomical and physiological measures of the child which include Weight-for-Age (W/A), Height-for-Age (H/A), and Weight-for-Height (W/H).

First, differential health outcomes often imply inequality, usually with an urban bias. Health inequality issues were a major topic among policy makers and academicians from the mid-1970s to the mid-1980s. In 1981, the World Health Assembly adopted a 'Global Strategy for Health for All by the Year 2000' (Gwatkin 2000). From the mid-1980s, however, developing countries faced economic decline and the goal of 'Health for All' proved unattainable (World Bank 1993). This study adds to the knowledge that seeks to eradicate differentials in health that result in social inequality in accessing health resources. In epidemiology, these 'differentials' would be referred to as 'social risk factors'. Nowadays, the proliferating term used in the social sciences is 'inequality'. According to Santow (1997), the central research theme in demography is 'comparison.' The primary reason for making these comparisons allows for the identification of high-risk groups in order to come up with ways to reduce high morbidity and mortality. In line with the argument presented by Mosley and Chen (1984), child morbidity and mortality is usually not the result of an acute single phenomenon, but should be viewed as a "process with multifactorial origins" (p.41).

Second, understanding issues surrounding infant health outcomes is critical to the betterment of future generations. At first, this sounds idealistic, but infants and children are indeed the future of today's population. Infant deaths cut short a population's life expectancy. Morbid conditions during infancy can have a detrimental effect on the development of a child (Olshansky et al., 1997; Santow 1997). In the four countries included in the study, infant mortality remains high. A substantial proportion of all deaths in these countries occur to persons under 5 years of age.

Therefore, gaining a greater understanding of the issues surrounding child mortality in the context of these countries would go a long way toward articulating the low life expectancy currently plaguing the region.

Third, there is an emergent interest in research that looks at the conceptual relationship between migration and infant morbidity and mortality (Finch, Frank, and Hummer 2000; Kanaiaupuni and Donato 1999; Landale, Oropesa, and Gorman 2000; Oropesa and Landale 2000). All this work, by and large, examines international migration from Latin America to the United States and finds that migrating women have better birth outcomes than nonmigrants because of both selection and 'negative assimilation'. The migrant women appear to be self-selected on characteristics related to increased survival chances of their children (Landale, Oropesa, and Gorman 2000). The 'negative assimilation' results from the fact that assimilation does not always result in positive outcomes (Hernandez and Charney 1998). However, there is paucity of research on this topic focusing on Africa and there is reason to expect, for example, that migration to urban areas in less developed countries would have different consequences than migration to urban areas in more developed countries. It should be noted that any differences in infant and child health outcomes between migrant groups that may be found are viewed as revealing responses to changing economic, political, and ecological situations.

Fourth, the four contiguous sub-Sahara African countries being studied—Kenya, Tanzania, Zambia, and Zimbabwe—have been impacted by the same historico-structural factors since British imperial times and are more or less similar in terms of

their politico-socio-economic development. Nevertheless, there are some disparities between these countries that originate from ethnic and cultural differences. Relatively reliable inferences derived from advanced quantitative analyses can be made in explaining the similarities and differences between the countries based on the similar instruments used in the DHS program. Thus, an overarching integrated analysis gives policy makers the chance to understand variables that are associated with positive outcomes as well as those responsible for negative health outcomes.