Since the 1990s, there is accumulating evidence that the social environment at the community level exerts significant influence on the various behavioral and health outcomes of people living in them, independent of individual and family risk factors (also called compositional factors). A large number of these investigations have examined different dimensions of adult health in relation to the various aspects of the community where people reside. For example, several studies in the US and the UK reveal that, independent of individual socio-economic characteristics, adult mortality is influenced by different indicators of community socio-economic context including poverty (Haan, et al, 1987; Waitzman and Smith, 1998), community levels of female-headed households (LeClere, et al, 1997), median family income (Anderson, et al, 1997), and unemployment (Robert, 1998). In these societies, adult morbidity, including self-assessed health is also significantly related to affluence (Wen, et al, 2003), area-deprivation level (Stafford, et al, 2001; Shouls, Congdon, Curtis, 1996), and proportion of households receiving public assistance (Robert, 1998).

Different attributes of the community have likewise been examined in relation to infant-child morbidity and mortality. These investigations using cross-sectional data demonstrate that after accounting for individual and family-level risk factors, low birth weight is associated with community- level poverty (O'Campo, et al, 1997; Pearl, et al, 2001; Rauh, et al, 2003; Buka et al, 2003; Collins et al, 1990); unemployment (O'Campo, et al, 1997; Gorman, 1999; Pearl, et al, 2001;) and residential segregation (LaViest, 1989). In the US, various dimensions of community health infrastructure such as local expenditures in health care and family practitioners per capita predict infant mortality, independent of individual and family-level covariates (Matteson et al, 1998).

Using multilevel analysis to separate out the variations in health outcomes that may be due to area-level factors from that of the characteristics of individuals, these investigations consistently demonstrate that where one lives matters for health. It is now generally accepted in the literature that the community contexts has modest but significant effects on behavioral and health outcomes and that its effects are much smaller than the compositional effects (Macintyre, et al, 2002; Pickett and Pearl, 2001).

An important contribution to the literature of some of these studies is the interesting interactions observed between community attributes and family/individual

characteristics. For example, in a study of the risks of low birth weight in Baltimore, MD, (O'Campo et al., 1997), not only observed independent effects of contextual factors but also that area-level variables modified the association between individual-level factors and the risk of low birth weight infants. In particular, it has been reported in this study that the protective effect of early uptake of prenatal care is diminished in high-risk neighborhoods (e.g., high unemployment neighborhood). In other words, the benefits of prenatal care on child health vary according to the residence context in which the family or child is situated.

Using linked birth and death records for Upstate New York, Matteson, et al (1998) report that contextual variables modified the relationship between individual-level risk factors and infant death. They observe that the risk of infant death associated with depending on Medicaid or being uninsured is reduced as the amount of local spending on health care services and hospitals increase. Additionally, the data also reveal that the risks related with not going to a private physician for prenatal care are lessened in counties with greater health care facilities.

Sastry's (1994) investigation of data for Brazil indicate that in the Northeastern region (but not in the rest of Brazil), community sanitation and water supply are more beneficial for children of less educated mothers, than more educated mothers. His analysis further shows that the wider availability of health services serves as a substitute for maternal education, i.e., regardless of maternal education, availability of health services promotes positive health outcomes for children. This investigation demonstrates that the community context modifies the association between maternal education and health outcome through the following mechanisms: the risks of child mortality associated with low maternal education is lessened in communities where there is greater access to sanitation and water supply and wide availability of heath services.

In sub-Saharan Africa, analyses of DHS data, indicate that the benefits of household social status (measured in terms of mother's and father's education and occupation) on child health are experienced only by those who reside in affluent areas (Fotso and Kuate-Defo, 2004). More specifically, this pattern is observed for the risks of

stunting and underweight among children in Burkina-Faso as well as for underweight children in Egypt, Kenya and Zimbabwe.

This review of empirical evidence underscores three points. First, community context matters for health and the interactions between community attributes and family characteristics are complex. It is not only important to examine both the contextual and compositional effects simultaneously, but also to examine the cross-level interactions between the two in order to identify the behavioral or social mechanisms through which community context affects health. Second, a large number of these investigations use data from the west, particularly the US and the UK and since child health is worse in developing countries, it is important to expand our understanding of the etiology of child health in developing countries. Third, most of these analyses used cross-sectional data. Communities change as they respond to societal processes such as economic cycles and population movements. Aside from having the potential of establishing the social, behavioral and biological causal pathways between community context and health outcome, using longitudinal data allows for the examination of how changes in the community and family atttributes affect health.

Using the Cebu (Philippines) Longitudinal Health and Nutrition Survey, an on-going study of women who gave birth in 1983/84, I will examine the independent and relative effects of the community context on infant and child mortality and health. As suggested in the literature, individual and family-level risk factors for infant/child mortality and morbidity will behave differently according to the characteristics of the community of residence. I will, thus, investigate the role of community SES in determining the pattern of relationship between selected family attributes and child health outcomes. As an exploratory objective of my research, I would like to investigate whether changes in community and family characteristics matter for children's health.