Father's out-migration and child health and mortality in Matlab, Bangladesh

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In previous decades, research has tended to view migration as a rupture of the relationship between migrants and migrant-sending communities. More recently, studies have found not only that migrants maintain ties with their origin communities, but also that they play a crucial role in promoting the development and welfare of those who are left behind (Massey et al. 1999). Migration is thus likely to also affect the *health and survival* of non-migrants, and to do so through specific socioeconomic pathways. Yet research has only recently begun to examine the exact nature of these pathways (e.g., Kanaiaupuni et al. 1999; Frank and Hummer 2002). Recent work in Bangladesh has found that migration of adult children results in improved mortality and health for parents left behind in the community of origin (Kuhn 2003). We are now extending this work to consider the effects of parental migration on non-migrant children's nutrition and health, on sex differentials in child nutrition and health, and on child survival.

The paper utilizes data from the 1996 Matlab Health and Socioeconomic Survey (MHSS), a multistage, multisample survey of social networks and health. The MHSS was conducted in Matlab Subdistrict, where ICDDR,B: The International Centre for Health and Population Research, has maintained ongoing demographic surveillance and maternal and child health interventions since 1966. Matlab is also an area of extensive outmigration, both to domestic and international destinations. Non-resident kin modules asked of MHSS household respondents offer information on parents of MHSS-respondent children living both inside and outside the household. Among children under age 15 in the survey, 10% had a father living outside of the district, with half of those abroad. The MHSS provides extensive information on non-resident kin migrant endowments (age, education); trip characteristics (destination area,

years in destination, occupation) and the relationship with the origin household (remittance patterns, frequency of contact).

MHSS child modules incorporate detailed reported and observed measures of health and cognitive function. Reports by a responsible adult (nearly always the mother) include data on morbidity, medical treatment and hospitalization. Of greatest interest for the current study are observed data on child nutrition (height and weight utilized to construct measures of wasting, stunting and weight-for-age). Additionally, a battery of tests assessed children's cognitive function and academic achievement.

A number of factors condition the effects of migration on child health. In general, migration of a family member is likely to influence health via pathways relating to financial transfers, or remittances, from migrants; lost labor or support from migrants; and behavioral or epidemiological changes resulting from the interface between the sending community and the host society. In moving from analyzing effects on old-age health to child health, we consider the potential mediating effect of life course status and hierarchy on the migration-health relationship. While elders, particularly those who financed children's migration episodes, may make effective claims on migrant remittances for the purposes of medical intervention, the claims of children may be considerably weaker. Additionally, the effects of lost personal and developmental support from a parent may pose particular risks for children.

Finally, the impact of migration impact may be mediated by the widespread practice of *purdah,* or sequestering of women. A father's absence could have particularly negative consequences if the mother's mobility is limited. Another plausible hypothesis would suggest that a father's absence would force mothers to become more mobile, thereby enabling them to gain greater control over child health resources, and indirectly improving child health. These

effects may differ by gender, in that sex bias in child feeding may differ depending on whether or not the father is present in the household. Household wealth may also affect child treatment both within the household and in terms of seeking treatment for child illness. Women's empowerment in recent years may have altered gender bias in child treatment.

Our very preliminary results demonstrate how complicated the relationships may be: children are less likely to be malnourished if the father has out-migrated, but have increased risk of dying in the five years after survey. These relationships hold after controlling for a number of sociodemographic factors.