The Economic Consequences of Illness and Death in South Africa

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Institutions, such as funerals, that develop over a long period of time may take time to adjust to a change as profound as the shift in the age-mortality profile that occurred in Southern Africa over the past fifteen years. As a result, households that bury members who die in middle age may find themselves less able to maintain a stock of productive assets, to stake migrants in urban areas until they find work, to finance schooling, and more broadly to provide a healthy environment within which to raise children. All these threaten household and individual wellbeing. To date, there has been little systematic evidence on the size of this effect. In this paper, we use longitudinal demographic and socioeconomic data collected in the Africa Centre for Health and Population Studies Demographic Surveillance Area between 2000 and 2010 to document the impact of household death on children's outcomes.

In 2000, the Africa Centre for Health and Population Studies began demographic surveillance of approximately 11,000 households in the Umkhanyakude District in northern KwaZulu-Natal, South Africa. The surveillance site includes both a township and a rural area administered by a tribal authority. At six month intervals, every household is visited and demographic and health information is collected on all household members. Individuals may be resident in the Demographic Surveillance Area (DSA), or may be non-resident members of households that claim them as members. Approximately two-thirds of all persons under demographic surveillance are resident in the DSA at any one time. Between 2001 and 2010, seven rounds of socio-economic data were collected in DSA households, which allows us to track household characteristics (such as asset ownership) and individual characteristics (such as enrollment, educational attainment, and expenditures made on children's educations).

In previous work (Case, Garrib, Menendez, and Olgiati 2008) we documented the high cost of funerals in the DSA, finding that, on average, households spend the equivalent of a year's income for an adult's funeral. Members of the household where the death occurred pay around 90 percent of the total costs of the burial. Almost one quarter of all households borrow money to pay for funerals, which can be anticipated to drain household resources well into the future. The amounts borrowed are substantial and, perhaps more troubling, more than half of all loans taken out to cover funeral expenses come from money lenders. In South Africa, money lenders charge

exorbitant interest rates, 30 percent per month or more. Poor households who borrow from a money lender for a funeral may find themselves paying back many multiples of that over several years.

To quantify the effect of a death in the household, we run ordinary least squares and child-specific fixed effect models of schooling outcomes on indicators for whether the child's mother has died, the child's father has died, and whether other prime-aged males and females, or pension-aged adults have died. We find that the death of a child's mother is associated with a large and significant decrease in a child's years of completed schooling – a result that holds with or without controls for individual child fixed effects. Similarly, with or without child fixed effects, we find that approximately 14 percent less is spent on the schooling of maternal orphans. When child fixed effects are included, identification of the impact of a mother's deaths comes from comparing a child's outcomes before and after his mother died. In fixed effect regressions, we find that the death in the household of a prime-aged female other than the child's mother has no significant effects on educational attainment, or on educational expenditures. However, the death of a pension-aged woman in the household is associated with significantly lower educational attainment and expenditure on a child's education. We plan to follow this further, to see whether a pension-aged woman may use part of her pension to protect a child's school fees. .

Death of adult household members makes it significantly more likely that a child loses residency status in the household. In fact, the child is significantly less likely to be claimed for some period of time by any household in the DSA, thus having a 'gap' in residency. This is true following mother's or father's death; or the death of other prime-aged or pension-aged women. Prime-age men other than fathers, and pension-aged men appear not to influence whether children are sent to live elsewhere, or leave the DSA altogether for some period. Gaps in residency put children at significant and substantial risk both for lower educational attainment, and for lower probability of school enrollment.

Table 1: Parental death and children's residency episodes.

	Number of child's residencies		Number of gaps in child's recorded residencies	
		Fixed effects		Fixed effects
Mother is dead	0.068	0.079	0.039	0.048
	(0.008)	(0.006)	(0.005)	(0.004)
Father is dead	0.055	0.034	0.028	0.014
	(0.006)	(0.005)	(0.004)	(0.003)
Obs.	192293	192293	192293	192293

Note to Table 1: All regressions include controls for sex of the child, household assets and length of time child has ever been seen until interview. Standard errors in parentheses