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**The Effects of Disability on Households' Economic Livelihood and Poverty in Vietnam**

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# THE EFFECTS OF DISABILITY ON HOUSEHOLDS' ECONOMIC LIVELIHOODS AND POVERTY IN VIETNAM

Although poverty has decreased over the past several decades, 9.3% of people still live in extreme poverty ([The World Bank, 2022](#)). Vulnerability to poverty remains an important policy issue, especially in many developing countries ([Naudé et al., 2008](#)). The COVID-19 pandemic halted the long decline in the extreme poverty rate, and in 2020, the global population living in extreme poverty increased by an estimated 70 million people ([The World Bank, 2022](#)). In order to continue to reduce the number of people living in poverty in the coming years, it is necessary to identify particular groups which may be more exposed to it. It is also imperative to understand why households enter into and remain in poverty and how to best support these households. Households with a disabled family member may be one such group. Through exposure to severe health shocks, households with a disabled member may have unique experiences or face distinct challenges, exhibit different beliefs (e.g., risk attitudes), and behave differently when exposed to natural disasters or additional health threats (e.g., coping strategies employed) that have implications for their economic resiliency or ability to cope with and recover from shocks. However, it remains unclear how these possible determinants of poverty interact and contribute to persistent disparities in both developing and developed countries.

Poverty dynamics has been an area of interest for over two decades ([Baulch and Hoddinott, 2000](#); [Carter and May, 2001](#); [Barrett, 2005](#); [Imai et al., 2011](#); [Michler and Josephson, 2017](#); [Ward, 2016](#)). However, empirical studies that can provide additional insights remain sparse, partially due to data limitations. This is especially true when studying households affected by disability. Data on households with a disabled member are scarce, especially panel data that allows for studying behavior and welfare over time. Even when such data is available, poor households are more likely to be exposed to and affected by past health shocks, making it hard to disentangle correlations and directional causality.

This paper makes use of a unique data set that surveys households in Vietnam over a 10-year period. Importantly, this data set also contains information on the occurrence and severity of a disability within the household in addition to data on income, assets, shocks, and coping strategies. This novel data set allows us to assess the impact of shocks on households' economic livelihood and vulnerability and resilience to poverty over time. Vietnam is particularly well-suited to examine the long-run effects of disability on poverty as more than 7% of, or 6.7 million, Vietnamese citizens report having at least some functional difficulties ([UNFPA, 2011](#)) and a higher percent of disabilities may be the result of truly exogenous shocks in Vietnam compared to other countries stemming from the consequences of the Vietnam War including bombings ([Palmer et al., 2019](#)) and exposure to chemical defoliants (such as Agent Orange). Both continue to impact people to this day. For instance, children of those exposed to Agent Orange are more likely to be born with birth defects such as spina bifida ([Committee to Review the Health Effects in Vietnam Veterans Exposure to Herbicides, 1996](#)) and over 66,000 people have been maimed by unexploded ordinances since the end of the war.<sup>1</sup>

We investigate the poverty dynamics of households with (DH) and without (NDH) a disabled member in Vietnam to develop a better understanding of not just the vulnerability but also the economic resiliency of households affected by disability. In particular, we analyze their resiliency or ability to cope with and recover from different types of shocks and discuss what efforts could be made to better support these vulnerable households. We address the following questions: Do DHs differ from NDHs

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<sup>1</sup>Please find a comprehensive report on unexploded ordinances [here](#).

in their beliefs about and behaviors related to experienced risks, current, and future shocks? How do different types of shocks impact the income and assets of these two groups? Do DHs and NDHs employ different sets of coping strategies to mitigate the effects of current and future shocks, and do they differ in the degree to which they employ these strategies? Are DHs less resilient across all types of shocks experienced, and what other factors can explain possible differences in poverty dynamics observed for these two types of households?

Importantly, our analysis distinguishes between health and natural shocks (e.g., weather shocks and shocks related to pests and livestock diseases), as well as the overall or cumulative number of shocks experienced. Households affected by disability might be more likely to face additional health shocks but should not differ in the probability of experiencing natural shocks. Observing income and asset losses due to these exogenous shocks allows us to test whether DHs and NDHs are differently affected and why. DHs could be more adversely affected because they develop differing beliefs and behaviors. Alternatively, the aggregate number of experienced shocks could disadvantage them and prevent them from permanently moving out of poverty. This could be true even when the socio-demographic makeup of the household is comparable to an NDH. It could further be true that these households have developed strategies to persist despite having to cope with more frequent health shocks and thus, could both be more vulnerable to poverty compared to nondisabled households, and more poverty resilient across at least some shock categories.

Our preliminary results indicate that DHs and NDHs differ in their risk attitudes and perception of future health shocks (but not other types of shocks). Overall, DHs are also more adversely affected when shocks occur. They lose an additional 4.3%-6.2% of their yearly income with each additional shock endured compared to NDHs. Income losses vary greatly by shock type, however. While DHs face more health shocks than NDHs on average, NDHs lose more of their household income with each additional health shock faced. The impact of additional health shocks on DHs' income is smaller in magnitude and not significant in most regression specifications. This suggests that DHs can better cope with and might be more resilient to health shocks than NDHs. On the other hand, DHs lose more than 26% of their yearly income as a result of each additional natural shock faced in a given year on average compared to just over 1% of income for NDHs. However, we find that NDHs' lost asset share is 0.5%-2.3% greater than DHs for each shock faced. DHs are also more likely to use insurance and rely on support from their social networks to cope with shocks. However, we do not find that reliance on social networks mitigates the impact of shocks for DHs. Instead, we find that drawing down savings successfully mitigates the impact of shocks on household income for both household groups while the use of insurance can lessen the impact of shocks on income for NDHs and the impact of shocks on assets for DHs.

Analyzing poverty dynamics, DHs are 6% more likely to be in chronic poverty than to have never experienced poverty when faced with an additional health shock than NDHs. DHs are also 34% more likely to have experienced poverty between 2010 and 2015 for each health shock faced. However, DHs are not any more likely to be in poverty if they experienced additional natural shocks. In contrast, NDHs were 45% more likely to be in chronic poverty than to have not experienced poverty for each natural shock they faced. When coping with shocks over time, we find that both household types are less likely to have experienced poverty if they were able to draw on their savings in response to a shock. Government assistance did not decrease the relative probability of being in chronic or transitory poverty for DHs and NDHs. DHs who drew down their stock of assets to cope with a shock were more likely to be in chronic poverty. These results suggest that additional government programs are needed, both to lift DHs out of poverty and to prevent them from falling back into poverty. Policymakers may consider cash transfers and the expansion of existing disability-related insurance and benefit programs to alleviate the burden of health shocks on household income and allow household members to substitute time and resources away from caring for disabled members toward more productive endeavors for the household.

## References

- BARRETT, C. B. (2005): “Rural poverty dynamics: development policy implications,” *Agricultural Economics*, 32, 45–60.
- BAULCH, B. AND J. HODDINOTT (2000): “Economic mobility and poverty dynamics in developing countries,” *The Journal of Development Studies*, 36, 1–24.
- CARTER, M. R. AND J. MAY (2001): “One kind of freedom: Poverty dynamics in post-apartheid South Africa,” *World Development*, 29, 1987–2006.
- COMMITTEE TO REVIEW THE HEALTH EFFECTS IN VIETNAM VETERANS EXPOSURE TO HERBICIDES (1996): “Veterans and Agent Orange: Update 1996,” Washington, D.C: The National Academy Press.
- IMAI, K. S., R. GAIHA, AND W. KANG (2011): “Vulnerability and poverty dynamics in Vietnam,” *Applied Economics*, 43, 3603–3618.
- MICHLER, J. D. AND A. L. JOSEPHSON (2017): “To specialize or diversify: Agricultural diversity and poverty dynamics in Ethiopia,” *World Development*, 89, 214–226.
- NAUDÉ, W., A. U. SANTOS-PAULINO, AND M. MCGILLIVRAY (2008): *Vulnerability in Developing Countries*, United Nations University Press.
- PALMER, M., C. V. NGUYEN, S. MITRA, D. MONT, AND N. E. GROCE (2019): “Long-lasting consequences of war on disability,” *Journal of Peace Research*, 56, 860–875.
- THE WORLD BANK (2022): “Poverty and Shared Prosperity 2022: Correcting Course,” <https://openknowledge.worldbank.org/bitstream/handle/10986/37739/9781464818936.pdf>.
- UNFPA (2011): “People with disabilities in Vietnam: Key findings from the 2009 Viet Nam Population and Housing Census.” [https://vietnam.unfpa.org/sites/default/files/pub-pdf/Disability\\_ENG.pdf](https://vietnam.unfpa.org/sites/default/files/pub-pdf/Disability_ENG.pdf).
- WARD, P. S. (2016): “Transient poverty, poverty dynamics, and vulnerability to poverty: An empirical analysis using a balanced panel from rural China,” *World development*, 78, 541–553.