

ECONOMIC AND SOCIAL RESEARCH COUNCIL END OF AWARD REPORT



For awards ending on or after 1 November 2009

This End of Award Report should be completed and submitted using the **grant reference** as the email subject, to **reportsofficer@esrc.ac.uk** on or before the due date.

The final instalment of the grant will not be paid until an End of Award Report is completed in full and accepted by ESRC.

Grant holders whose End of Award Report is overdue or incomplete will not be eligible for further ESRC funding until the Report is accepted. ESRC reserves the right to recover a sum of the expenditure incurred on the grant if the End of Award Report is overdue. (Please see Section 5 of the ESRC Research Funding Guide for details.)

Please refer to the Guidance notes when completing this End of Award Report.

Grant Reference	RES-167-25-0076		
Grant Title	Demographic and poverty dynamics in an African population with high AIDS mortality and implications for social policy		
Grant Start Date	9 th October, 2006	Total Amount Expended:	£ 519,680.35
Grant End Date	8 th March, 2010		
Grant holding Institution	London School of Hygiene & Tropical Medicine		
Grant Holder	Professor Ian Timæus		
Grant Holder's Contact Details	Address	Email	
	London School of Hygiene, Keppel Street, London, WC1E 7HT	ian.timæus@lshtm.ac.uk	
		Telephone 020-7387 0546	
Co-Investigators (as per project application):		Institution	
Professor Jane Falkingham		University of Southampton	
Professor Julian May		University of KwaZulu-Natal	

1. NON-TECHNICAL SUMMARY

Please provide below a project summary written in non-technical language. The summary may be used by ESRC to publicise your work and should explain the aims and findings of the project.

[Max: 250 words]

The project investigated the impact of deaths of working-age adults on household welfare and the determinants of differential vulnerability and resilience. It analysed two longitudinal studies from KwaZulu-Natal, South Africa, where mortality has risen massively since the late 1990s and most working-age adult deaths are now from AIDS. Because both studies have collected demographic and economic data from households at least three times, we could use more sophisticated statistical methods than earlier studies to tease out the consequences of these deaths.

The effects of adult deaths vary according to the characteristics of dead person, their household, and their cause of death. Poverty in South Africa is linked closely to unemployment and, in poor households whose income derives largely from pensions and welfare grants to children, the death of working-age adults often benefits per capita consumption. By contrast, in better-off households working-age deaths reduce consumption, with their impact being largest when young adults die or the death is from AIDS. But even better-off households hit by deaths regain their earlier standard of living within a few years.

Our research identifies two key areas in which government action could mitigate the misery caused by AIDS in South Africa. First, orphans do less well than other children at school and elsewhere. Targeted support services would benefit them more than additional financial support. Second, making it easier for people living with AIDS to access Disability Grants – or a new Illness Grant – would both improve their treatment outcomes and greatly reduce hardship in their households.

2. PROJECT OVERVIEW

a) Objectives

Please state the aims and objectives of your project as outlined in your proposal to the ESRC.

[Max: 200 words]

The ADaPT (AIDS, Demographic and Poverty Dynamics) project aimed to:

1. improve understanding of the impact of deaths of working-age adults on household welfare, households' responses, and the determinants of differential vulnerability and resilience;
2. examine the effects of demographic change, including the AIDS epidemic, on poverty dynamics across the life course in South Africa;
3. assess different social policy interventions designed to mitigate impact and their distributional implications across the life course;
4. improve the measurement of poverty dynamics;
5. consider the implications of the above for other countries in Africa in which there are high working-age adult mortality rates.

b) Project Changes

Please describe any changes made to the original aims and objectives, and confirm that these were agreed with the ESRC. Please also detail any changes to the grant holder's institutional affiliation, project staffing or funding. [Max 200 words]

None

c) Methodology

Please describe the methodology that you employed in the project. Please also note any ethical issues that arose during the course of the work, the effects of this and any action taken. [Max. 500 words]

The project centred on the secondary analysis of two household panels. The *KwaZulu-Natal Income Dynamics Study* collected data in 1993, 1998, and 2004 using a questionnaire based on that used for the World Bank's Living Standards Measurement Surveys. Of the 1354 households interviewed in 1993, 1132 were interviewed in 1998, and 841 in 2004. The *Africa Centre Demographic Information System (ACDIS)* has had more than 11,000 households under demographic surveillance in the Umkhanyakude district of KwaZulu-Natal since 2000. Household expenditure data were collected in 2003-4, 2005, and 2006.

We also developed a static household micro-simulation model designed to examine the fiscal implications of (i) the impact of demographic changes due to the AIDS epidemic between 2008 and 2015 on the existing system of welfare grants and (ii) possible changes to the system of welfare grants that might mitigate the impact of AIDS. In addition, a PhD student on a linked ESRC studentship conducted qualitative research into the impact of AIDS on the livelihoods of rural households by means of in-depth case studies of ten affected households residing in the area covered by ACDIS.

The econometric challenges involved in estimating the impact of AIDS deaths on household expenditure in our two panels proved even more challenging than anticipated in our original proposal. Both omitted variable bias (unobserved heterogeneity) and simultaneity bias (reciprocal causation) turn out to be major issues with the estimated effects of adult deaths being sensitive to the exact specification of the model used to identify them. Many previous studies of the impact of AIDS have relied on cross-sectional data. Most of those based on longitudinal data, for example studies in Kenya (Yamano and Jayne) and Tanzania (Beegle, deWeerd and Dercon), had only two waves of data available. This allows one compare changes in expenditure in affected and control households, but not to compare changes in expenditure in the *same* households in periods in which they did and did not experience adult deaths. With three waves of data, we could attempt this. However, while fitting household fixed effects models removes one source of bias, it is also important to control for initial household expenditure to reduce simultaneity bias. This involves fitting a dynamic panel model and risks introducing further bias due to temporal autocorrelation in the residuals. Addressing all these issues with just three waves of data has not been attempted before in the literature on the impact of adult deaths (including in Grimm's recent 2009 paper on Indonesia). It is, however, possible using the first difference instrumental variables approach first proposed by Anderson and Hsiao.

Developing a micro-simulation model of households in South Africa in order to model changes in the welfare grants system and calibrating it to projections of the population

and AIDS epidemic in the country was also a bigger challenge than we had anticipated. It was completed successfully because the researcher undertaking this aspect of the work raised additional funds to recruit a research assistant to help her complete the developmental work.

d) Project Findings

Please summarise the findings of the project, referring where appropriate to outputs recorded on *ESRC Society Today*. Any future research plans should also be identified. [Max 500 words]

The findings from ACDIS and KIDS are broadly consistent and emphasize the complexity of the interactions between the demographic and economic dynamics of households and the heterogeneity of the impacts that adult deaths have on surviving members of the household. In South Africa, poor people tend to live in large households and upward economic mobility is strongly linked to the establishment of new households by young nuclear families. Both poverty itself and differential household size mean that the poor are much more likely to experience the death of a working-age household member than those in better-off households.

The consequences of adult deaths vary greatly according to the characteristics of dead person, their household, and their cause of death. There are few peasant farmers in South Africa and poverty is linked closely to the unemployment of working-age adults. Thus, in poor households whose income derives largely from pensions and welfare grants to children, the death of working-age adults often benefits per capita consumption. By contrast, adult deaths reduce consumption in better-off households, with their impact being largest when it is a young adult who dies or the death is from AIDS. But even better-off households hit by deaths regain their earlier standard of living within a few years.

The qualitative study conducted by the linked PhD student also shows that poor households without any employed members can suffer extreme hardship when caring for one or more sick adults, especially if they lack or exhaust their ability to mobilise support from non-resident members, other relatives and neighbours. Either the recovery of the sick person following their enrolment in the anti-retroviral therapy programme or, more sadly, their death markedly reduces households' difficulties.

Given the complexity of these findings, it is unsurprising that their policy implications pull in diverse directions. The lack of any unemployment benefit creates a black hole in the core of the social welfare system in South Africa that pulls in cash payments intended to benefit children, the elderly and others unable to work. Equally, it ensures the fiscally sustainable of the existing grant system. Indeed, the State could arguably afford to extend eligibility for the Foster Care Grant to all double orphans even though their numbers are set to rise. On the other hand, our research demonstrates that orphans face problems at school and elsewhere that result not from poverty alone but from bereavement itself and could only be addressed by targeted support services.

The economic difficulties associated with the death of working-age adults are most severe when the person is ill and immediately after they die. The State could provide additional support during this crisis period without incurring a fiscally unsustainable burden. In particular, our results suggest that receipt of the Disability Grant

synergistically benefits individuals enrolling in the antiretroviral therapy programme. Given the similarity of the eligibility criteria for the grant and therapy, an integrated applications process could both reduce transaction costs and improve outcomes.

e) Contributions to wider ESRC initiatives (eg Research Programmes or Networks)

If your project was part of a wider ESRC initiative, please describe your contributions to the initiative's objectives and activities and note any effect on your project resulting from participation. *[Max. 200 words]*

This project is part of the Joint ESRC/DFID Scheme for Research on International Poverty Reduction. After we received the award, both Timæus in London and May in Johannesburg made presentations and answered questions at meetings organised by the ESRC to brief researchers planning to submit funding applications to the next wave of the scheme.

Timæus provided extensive briefings to the journalist who was preparing an article on the scheme for publication in *Social Sciences*, 65.

In May 2008, Timæus participated in a two-day participatory workshop for ESRC/DFID PIs on Maximising Research Influence/Impact with the aims of advancing knowledge on how research can be used to drive change and how this might be captured and developing a framework and case study methodology for assessing research influence/impact in ESRC-DFID research. The more sophisticated understanding he developed of these issues informed our plans for disseminating the results of this research.

3. EARLY AND ANTICIPATED IMPACTS

a) Summary of Impacts to date

Please summarise any impacts of the project to date, referring where appropriate to associated outputs recorded on *ESRC Society Today*. This should include both scientific impacts (relevant to the academic community) and economic and societal impacts (relevant to broader society). The impact can be relevant to any organisation, community or individual. *[Max. 400 words]*

None.

b) Anticipated/Potential Future Impacts

Please outline any anticipated or potential impacts (scientific or economic and societal) that you believe your project might have in future. *[Max. 200 words]*

The research has materially improved on both the methods used previously to assess the impact on households of adult deaths and understanding of the complexity of those impacts. We expect it to exert a significant impact on further work on this issue that will be evident from citations of our publications.

The South African research student awarded a linked ESRC studentship is about to submit her PhD thesis and has obtained a post as a Researcher with the Human Sciences Research Council in Durban. As only a handful of South African nationals have a PhD in demography or a related field, her training represents a significant contribution to the country's research capacity. Moreover, the project's full-time researcher is also completing a PhD based on her work for this project.

Our results were presented on 18 May 2010 in Pretoria to an audience of about 85, comprised mainly of civil servants from the Department of Social Development and other government departments and agencies, but also including representatives of the aid agencies and researchers. While we cannot yet identify specific impacts resulting from this workshop, the presentations excited a lot of interest and discussion and will inform future policy debates within government.

You will be asked to complete an ESRC Impact Report 12 months after the end date of your award. The Impact Report will ask for details of any impacts that have arisen since the completion of the End of Award Report.

4. DECLARATIONS

Please ensure that sections A, B and C below are completed and signed by the appropriate individuals. The End of Award Report will not be accepted unless all sections are signed.

Please note hard copies are NOT required; electronic signatures are accepted and should be used.

A: To be completed by Grant Holder

Please read the following statements. Tick ONE statement under ii) and iii), then sign with an electronic signature at the end of the section.

i) The Project

This Report is an accurate overview of the project, its findings and impacts. All co-investigators named in the proposal to ESRC or appointed subsequently have seen and approved the Report.	<input checked="" type="checkbox"/>
---	-------------------------------------

ii) Submissions to *ESRC Society Today*

Output and impact information has been submitted to <i>ESRC Society Today</i> . Details of any future outputs and impacts will be submitted as soon as they become available.	<input checked="" type="checkbox"/>
OR	
This grant has not yet produced any outputs or impacts. Details of any future outputs and impacts will be submitted to <i>ESRC Society Today</i> as soon as they become available.	<input type="checkbox"/>
OR	
This grant is not listed on <i>ESRC Society Today</i> .	<input type="checkbox"/>

iii) Submission of Datasets

Datasets arising from this grant have been offered for deposit with the Economic and Social Data Service.	<input type="checkbox"/>
OR	
Datasets that were anticipated in the grant proposal have not been produced and the Economic and Social Data Service has been notified.	<input type="checkbox"/>
OR	
No datasets were proposed or produced from this grant.	<input checked="" type="checkbox"/>