ICLS
LIFECOURSE STUDIES IN SOCIETY AND HEALTH

Life Gets Under Your Skin

Edited by
Professor Mel Bartley

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ECONOMIC & SOCIAL RESEARCH COUNCIL

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Foreword

WELL-BEING IS increasingly thought to be influenced as much by society as by biology. And in some circumstances, social factors can be more significant than genetic factors in predicting outcomes.

Our well-being is influenced by experiences that stretch right across the lifecourse.

Britain is unique – and fortunate – in having a breadth of cross-sectional and longitudinal studies of people and society.

A good start in life is important to equip us to deal effectively with inevitable setbacks and challenges, but how do you measure and quantify what that good start is?

Britain is unique – and fortunate – in having a breadth of cross-sectional and longitudinal studies of people and society. The key longitudinal studies, particularly the Birth Cohort Studies, extend our knowledge of babies and young children today, and break new ground for social and biomedical researchers.

The new 2012 UK Life Study will track the growth, development, health, well-being and social circumstances of over 100,000 UK babies and their families, collecting both socio-economic and biomedical data. This will allow the critical interplay between genes and environment, and its impact on child development, to be explored on an unprecedented scale.

But researchers also benefit hugely from the previous Birth Cohort Studies, which were started long before this new analysis of the importance of social as well as genetic influences on well-being. Today these studies provide the resources to help prove or disprove theories about the predictors of well-being.

Other developments in the future could provide further benefits. For example, linking the findings from lifecourse studies with related data such as hospital records can provide exciting insights. There needs to be great care over how such data are handled to ensure confidentiality but, linked together, these data can provide new perspectives and evidence not possible with single surveys, which are inevitably smaller scale or more narrowly focused.

Lifecourse research is not only valuable in predicting how young people's well-being is influenced by their start in life. As these longitudinal studies mature, they also increasingly reveal the effects of social factors on an ageing population and, as we understand more, we can see the ways in which adverse circumstances and behaviours beginning in early childhood can rob people of active and healthy years later on in life.

It is not only scientists and academics who are interested in what happens over the lifecourse. Parents, teachers, social workers, doctors and young people themselves are at the centre of work looking at how the things that happen throughout the whole course of people's lives affect their outcomes. This booklet is intended to help make the results of lifecourse research as widely available as possible, informing decisions and improving understanding across a broad range of audiences.

Paul Boyle
Chief Executive, UK Economic and Social Research Council (ESRC)

Introduction

WE LIVE AT THE TIME of an explosion of information about human beings in society. We can map people's comings and goings. We know more and more about what people buy – or even what they would like to buy, if they search online. Improvements in measuring DNA have led to 'cold-case units' that solve crimes from decades in the past. These examples are familiar to everyone, and they show the ways in which both social and biological information has increased.

What is happening less quickly is the development of the ability to combine social and biological information.

What is happening less quickly is the development of the ability to combine social and biological information, and to do this across the whole of people's lives. Great Britain has a unique collection of studies in which people have been followed from birth into early old age. There are at present four of these Birth Cohort Studies, made up of people born in 1946, 1958, 1970 and 2000. The members of the 1946 and 1958 cohorts have generously allowed researchers to take a lot of biological health measures, as well as answering questions about their families, education, work, relationships and mental health. To these studies may be added others which have not followed people from birth, but which have measured changes in life circumstances and biology over many years.

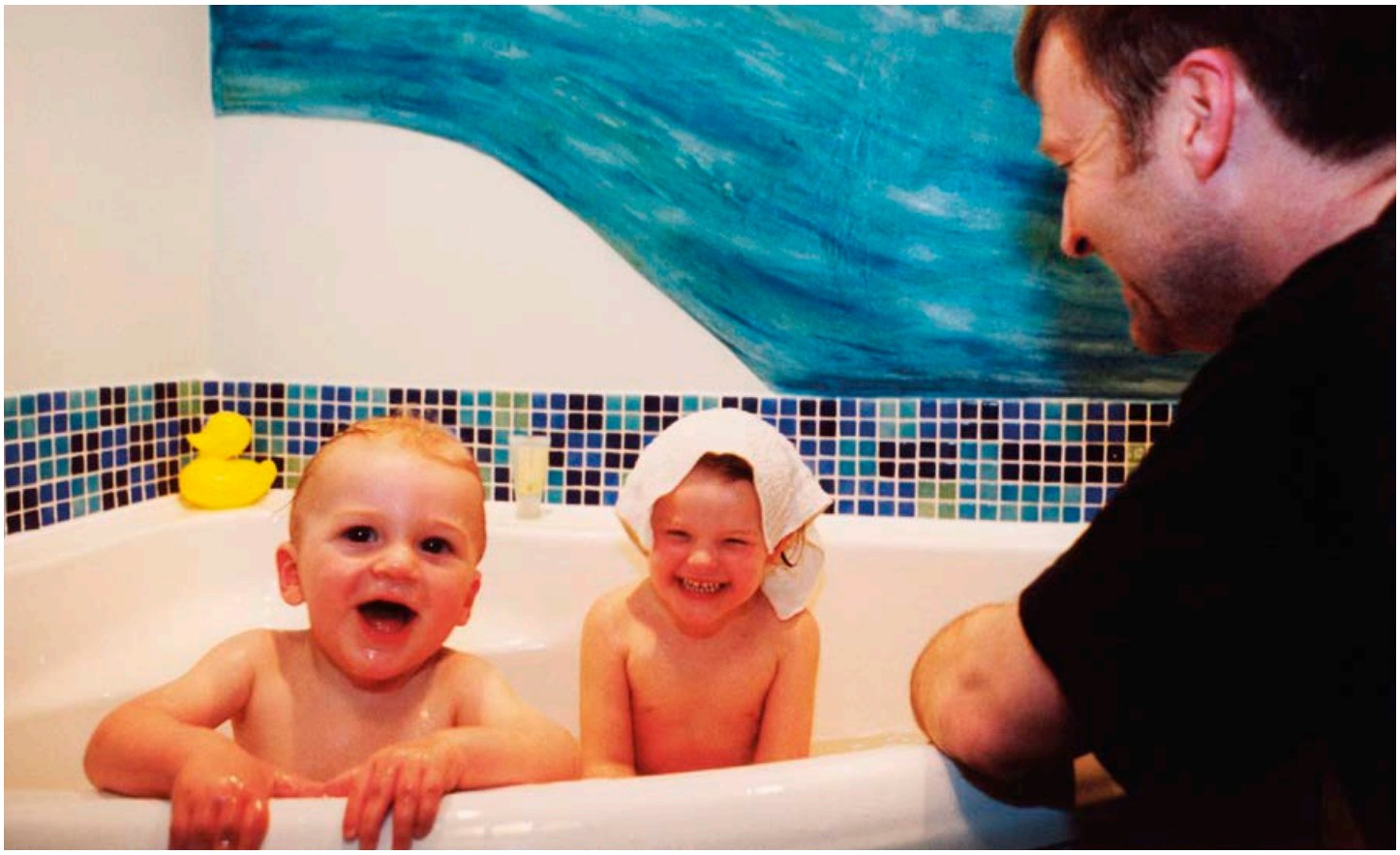
This booklet summarises some of the work that has been done by one research group using these studies. There are two enormous challenges. The first is to find the best ways to combine information from different stages of life to find patterns, without ignoring the individuality of every person in the studies. In general, adversities at one life stage seem to increase the risk of more adversities later on. But on the other hand, some people are resilient, or take an unusual and individual pathway through life. One of the aims of the research has been to find out what are the escape routes from disadvantage, what factors increase freedom of choice, and how best these can be provided by health and social policies.

The second challenge is to combine social and biological information. Researchers who study friendship, for example, have very different theories and methods from those who study heart disease. But we know that people with a network of supportive friends are less likely to get heart disease. How does this work? Is it that healthier people make friends throughout their lives? Only long-term studies over the lifecourse can possibly answer such questions. Researchers studying Alzheimer's disease use very different methods from those who study education. But we know that people with more education are less likely to get Alzheimer's disease. The same problem arises: maybe people with stronger brains do better in education and are more resilient against disease as they grow older. But it does not look as if this is the whole answer. It looks as if social relationships and education can improve people's health regardless of where they started. If this turns out to be true, it is of the most enormous importance. Neither having more friends nor getting more education could possibly do any harm: there are no 'side effects', except good ones. Yet we still know so little about how these 'medicines' actually work and get 'under our skins'.

And that is the aim of the work outlined in this booklet.

Professor Mel Bartley
Director, ESRC International Centre for Lifecourse Studies in Society and Health

1. A good start in life



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EARLY CHILDHOOD is a crucial developmental period, and it can be measured and assessed in several ways. Lifecourse research has shown that such measurements also predict aspects of health and well-being throughout life. Children who have a good start in life not only have healthier and happier childhoods, but also enjoy far-reaching beneficial effects in adulthood.

Our work in this area uses information on thousands of young children and their families from the time of birth and throughout childhood. This allows us to increase our knowledge and contribute to policy discussions. Influences on early childhood development are multi-layered. Parental love and attention matter a lot, of course, but so do the parents' income, family housing, and the neighbourhoods where children live. For instance, there are large differences in early development between children who live in areas perceived by their mothers as unsafe and those living in areas that are seen as safe.

A good start in life has far-reaching benefits for health and social functioning.

Children in families with low incomes are far more likely to have social and emotional problems and lower scores in reading and maths tests than children living in families with adequate incomes. In order to be able to take advantage of their school years, children need to have 'school-readiness', a mixture of basic intellectual skills and behaviours. Children from poor families are less likely to be 'school-ready', which means that they are already at a disadvantage when they enter school, and there is no evidence that they catch up by the age of seven. Children from some ethnic minority groups have unfavourable developmental profiles. They are more likely to be too small and light at the time of birth, to have illnesses like asthma, or to be overweight or obese in later childhood; and they are less likely to be 'school-ready' at school entry. Encouragingly, by the age of seven, children of all ethnic groups do

equally well in reading tests, although some groups still lag behind in maths scores.

Our work has sought to explain how social and economic differences are linked to early child development. How does poverty translate into worse health for children? Why are children from some ethnic minority groups less likely to be 'school-ready'? To tackle questions like these we focus on children's and families' everyday experiences and environments. One group of important factors in children's early lives is to do with family routines, such as regular bed and meal times. The quality of housing is another important item – damp homes are linked to asthma and wheezing illnesses. Children's development also depends to some extent on their parents' health.

Our work has also improved our understanding of some very early influences. For example, children born as a result of unplanned pregnancies are at no disadvantage as long as they do not also have an unfavourable home environment. Children born to mothers who drink low levels of alcohol (no more than two units per week) during pregnancy are not at risk of social, emotional or intellectual difficulties. New research on children born in 2000–2001 has also confirmed the benefits of breastfeeding, which is positively linked to social, emotional and intellectual development and early school performance.

KEY SOURCES

Carson C., Kelly Y., Kurinczuk J.J., Sacker A., Redshaw M. & Quigley M.A. 'Does pregnancy planning matter? Cognitive outcomes in the first five years: findings from the Millennium Cohort Study.' British Medical Journal 2011; 343: doi:10.1136/bmj.d4473.

CSDH. Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health. Final Report of the Commission on Social Determinants of Health. Geneva: World Health Organization, 2008.

Heikkilä K., Sacker A., Kelly Y., Renfrew M.J. & Quigley M.A. 'Breastfeeding and child behaviour: findings from the Millennium Cohort Study (MCS).' Archives of Disease in Childhood 2011; doi: 10.1136/jech.2010.120956.12.

Kelly Y., Sacker A., Del Bono E. & Marmot M. 'What role for the home learning environment and parenting in reducing the socioeconomic gradient in child development? Findings from the Millennium Cohort Study.' Archives of Disease in Childhood 2011; doi: 10.1136/adc.2010.195917.

Kelly Y.J., Sacker A., Gray R., Kelly J., Wolke D., Head J. & Quigley M.A. 'Light drinking during pregnancy – still no increased risk for socioemotional difficulties or cognitive deficits at five years of age?' Journal of Epidemiology and Community Health 2012; 66: 41–8.

Shonkoff J. & Phillips D. From Neurons to Neighborhoods: the Science of Early Childhood Development. Washington, DC: National Academy Press, 2000. Available online at: http://www.nap.edu/catalog.php?record_id=9824.

POLICY IMPLICATIONS

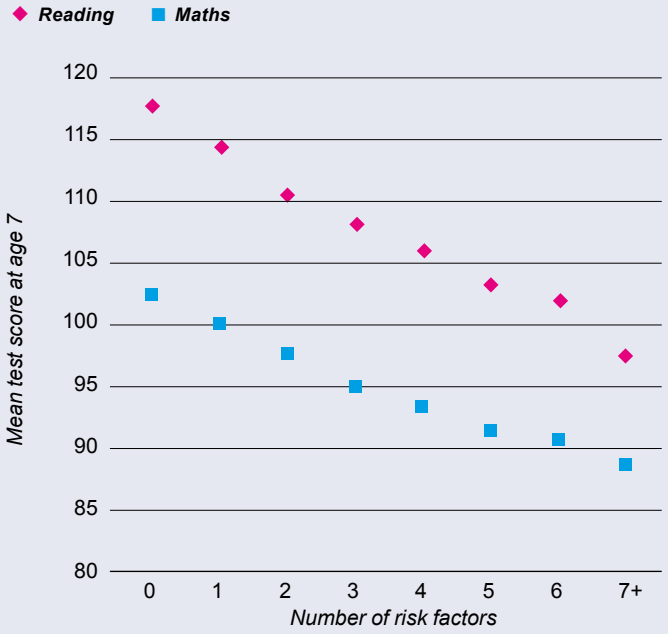
Proximal factors related to the day-to-day activities of family life might be the most amenable to change, with consequent benefits for young children. It is recognised that such proximal influences interact in complex ways with more distal factors related to the social context of people's lives. Initiatives are needed to support families to provide environments in which young children can flourish:

- Support for positive health behaviours: for instance, the initiation and continuation of breastfeeding for a minimum of four months ('get them going and keep them going').
- Support for the routines of day-to-day life: for instance, regular meal and bed times.
- Support for one-to-one activities between the carer and child: for instance, reading a storybook together daily (or almost daily).

Cognitive function decreases as number of early-life adversities increases

Risk factors include: low birthweight; not being breastfed; maternal depression; having a lone parent; family income below 60% of the median; parental unemployment; maternal educational qualifications; damp housing; social housing; area deprivation (lowest quintile of IMD).

Cognitive test scores at age 7, by number of risk factors



2. Family life

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FAMILY LIFE has undergone dramatic changes over recent decades. There is more and more freedom to define the group you live in as a family, if that is what you want to do. Families no longer have to have two parents, they can contain children from different parents, and parents no longer have to be of different genders. Many families have strong links with members spread across the world. The days when a 'family' could only consist of mum, dad and their biological children are gone. However, more freedom also means less certainty, and this has led to concerns about the impact of family instability on the health and well-being of both children and adults.

The most beneficial environment for children appears to be a stable household with two parents who are both in paid work.

Our research found that family living arrangements are related to children's physical health. Children whose parents remain married throughout the early childhood years are less likely to suffer from breathing problems such as asthma, to become overweight or to be injured in accidents by the time they are five years old than children who have experienced a more unstable family situation. Children of lone mothers are also more likely to have some types of behavioural problems than children in two-parent families. But the research shows that households that experience instability tend to be worse off financially than households

with stably married parents, and this is one of the main reasons why children in unstable households are more likely to have health and behaviour problems. Looking at the longer term, we find that parental separation in childhood is consistently associated with psychological distress in adulthood during people's early 30s. This seems to be true even across different generations, which suggests that as divorce and separation have become more common, their impact on mental health has not reduced.

The last part of the 20th century also saw a large increase in the number of families where both partners have paid work. Employed parents often worry about the impact that time spent in paid work may have on their children. But our research has not found any detrimental effect on a child's social or emotional development by the age of five if their mother has been employed during their first five years. The ideal scenario for children, both boys and girls, seems to be when both parents live in the home and both are in paid employment.

Looking at the longer-term impact of mothers' paid work as children grow into adolescence, we see that the mother's education and the family income both play a key role. When young people whose mothers were in paid work during their childhoods reach adolescence, they are less likely to report poor general health, to have poor mental health or to be a smoker than those whose mothers were not in paid work. But this is only true for those who grew up in better-off households with more highly educated mothers. In less well-off households, it makes no difference to adolescents' smoking or general physical health if their mothers have been in paid employment. And in these households, the more years the mothers spend in paid work during their offspring's childhoods, the greater the tendency for those children to have poor mental health during adolescence.

POLICY IMPLICATIONS

This research underlines the importance of supporting parents to combine paid work with family responsibilities. Current policy levers for providing such support include parental leave, flexible working, and the provision of affordable high-quality childcare. The UK falls behind other European countries in terms of the state provision of childcare, and relies more than most countries on mothers working part-time. Working hours among full-time workers are longer in the UK than in nearly every other European country.

KEY SOURCES

Cooksey E., Joshi H. & Verropoulou G. 'Does mothers' employment affect children's development?' Longitudinal and Life Course Studies 2009; 1(1): 95–115.

Crompton R. Employment and the Family: the Reconfiguration of Work and Family Life in Contemporary Societies. Cambridge: Cambridge University Press, 2006.

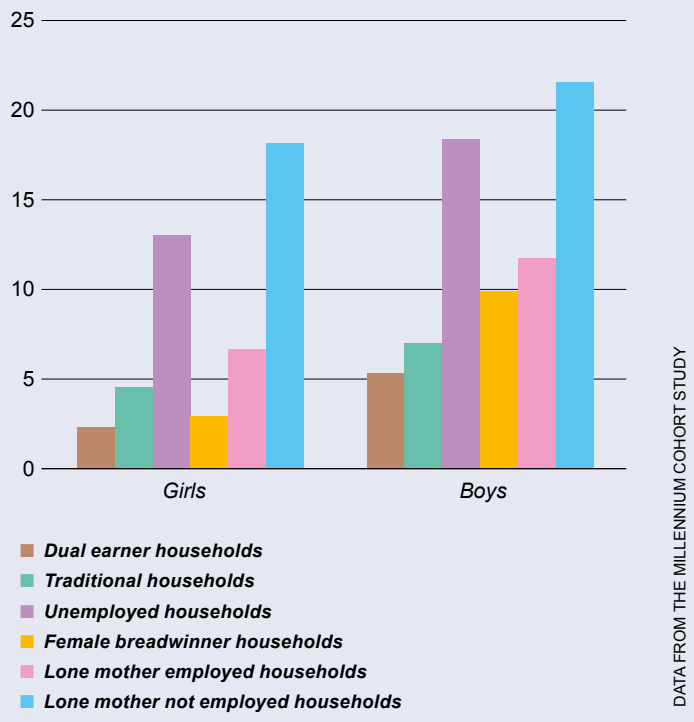
Gornick J.C. & Meyers M.K. Families that Work: Policies for Reconciling Parenthood and Employment. New York: Russell Sage Foundation, 2003.

McMunn A., Kelly Y., Cable N. & Bartley M. 'Maternal employment and child socio-emotional behavior in the United Kingdom: longitudinal evidence from the UK Millennium Cohort Study.' Journal of Epidemiology and Community Health 2011; doi: 10.1136/jech.2010.109553.

Panico L., Bartley M., Kelly Y., McMunn A. & Sacker A. 'Changes in family structure in early childhood in the Millennium Cohort Study.' Population Trends 2010; 142: 78–92.

Pikhartova, J. The Relationship Between Maternal Employment in Childhood and Health-Related Outcomes in Adolescence: Findings from the BHPS, PhD thesis, 2012.

Proportion of children with behavioural difficulties at age five by household type and gender



3. A period of crucial changes: Adolescence

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ADOLESCENCE, which occurs approximately between the ages of 10 and 19, is a turbulent and exciting time, when crucial transitions to adulthood take place such as starting to live independently, completing formal education, and entering the workforce. It is also a time when risks accumulated since childhood start to snowball, affecting the behaviour of young people and their timely transition to adulthood.

In general, English teenagers' health behaviours have been improving in recent years, even though unhealthy behaviours such as alcohol and drug use, lack of exercise, and risky sexual practices start emerging in adolescence. This is particularly encouraging because health behaviours established during adolescence often endure: adolescents who drink frequently and heavily are twice as likely to misuse alcohol in adulthood than those who do not (see below).

Young people with academic qualifications or high self-esteem are likely to make a timely

"Especially in an aging society, we need healthy, motivated and well-educated young people to keep our society vibrant, flourishing and productive." *Copp, 2005*

transition to adulthood. On the other hand, financial difficulties and living in deprived neighbourhoods affect family well-being and cause problems for young people in making a successful transition into adulthood. Teenagers from poorer socio-economic backgrounds are often forced into taking on work and family responsibilities, even if they are not mentally ready for those responsibilities.

Although the physical health of most adolescents is basically good, adolescence is the time of life when mental health begins to be a problem for some young people. An early transition to adulthood can add to such pre-existing problems, placing young people at greater risk of poor health in later life. Becoming a parent at a young age has been associated with a lower quality of life and poorer health among adults, even after their children have grown up.

At the same time, having to wait too long to take up more adult roles can also cause unhappiness. A delayed transition to adulthood may be forced on many young people because of the lack of stable employment and the difficulty of finding suitable independent housing. Even among those who are academically and financially successful, some pour so much energy into their career that they are less likely to invest in developing mature adult social relationships. 'Extended adolescence' is becoming an increasing problem for young people from all backgrounds.

KEY SOURCES

Burgess S., Propper C., Rees H. & Shearer A. 'The class of 1981: the effects of early career unemployment on subsequent unemployment experiences.' Labour Economics 2003; 10(3): 291–309.

Cable N. & Sacker A. 'Typologies of alcohol consumption in adolescence: predictors and adult outcomes.' Alcohol and Alcoholism 2008; 43(1): 81–90.

Chen E. & Paterson L.Q. 'Neighborhood, family, and subjective socioeconomic status: how do they relate to adolescent health?' Health Psychology 2006; 25(6): 704.

Fuller E., ed. Smoking, Drinking and Drug Use Among Young People in England in 2010: Summary. National Centre for Social Research, 2011. Available at: http://www.ic.nhs.uk/webfiles/publications/003_Health_Lifestyles/Smoking%20drinking%20drug%20use%202010/Smoking_drinking_and_drug_use_among_young_people_in_England_2010_Summary.pdf.

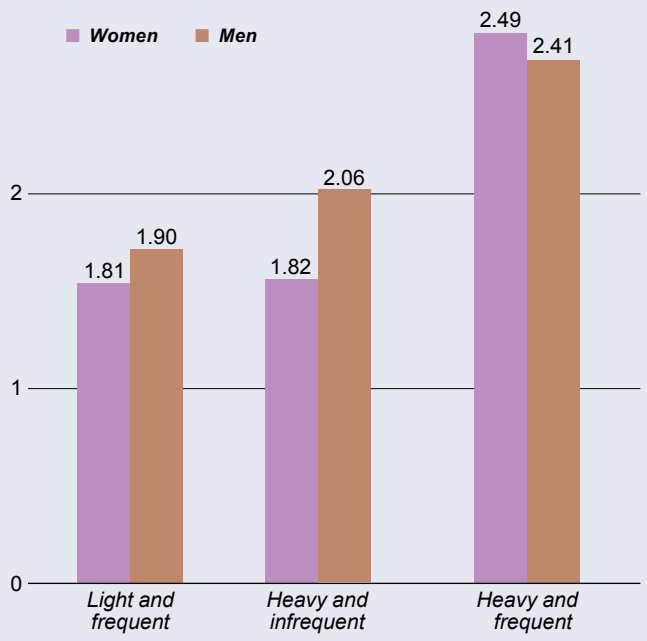
Read S. & Grundy E. 'Fertility history and quality of life in older women and men.' Ageing and Society 2011; 31(01): 125–45.

Sacker A. & Cable N. 'Transitions to adulthood and psychological distress in young adults born 12 years apart: constraints on and resources for development.' Psychological Medicine 2010; 40(2): 301–13.

POLICY IMPLICATIONS

- Policies targeting adult well-being could give greater consideration to socially constraining factors (e.g. poor income) that determine young people's social and health outcomes.
- Interventions to tackle adult alcohol misuse should start in adolescence and even earlier, promoting an alcohol-free culture for young people.
- There should be continuing investment in programmes encouraging young people to obtain basic qualifications and occupational skills to equip them for adult and social responsibilities.

Chances of misusing alcohol at age 30 by drinking patterns at age 16



Note: Frequent drinking = 2+ days per week; heavy drinking = 4+ units per day. All figures (odds ratios) are compared to non-/infrequent drinkers.

4. Work, worklessness and well-being

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EMPLOYMENT plays a large part in the health and well-being of adults of all ages and both genders. This is truer now than it has ever been, because most women – even mothers with children at home – are now employed at least part-time. Women who have no job are far more likely to regard themselves as 'unemployed' rather than 'housewives' than was the case 20 years ago.

The economic crisis that began in 2008 followed many years of change in the nature of work. Privatisation, insecurity, job mobility, non-permanent contracts and competition had already increased. Job insecurity and stress for those in paid work, as well as unemployment, have become increasingly common. With proposed new legislation to extend the years of work past the age of 65, it is increasingly important to understand the implications of this extension not in economic terms, but with reference to health and well-being.

Secure jobs are healthier jobs – unemployment and insecurity undermine policies to extend working life.

Previous research by our centre has shown that unemployment has lifelong negative effects on psychological and physical health. Our more recent research also shows that the loss of one's job results in psychological distress, and that getting a job boosts psychological well-being (see Figure). Why is our mental well-being so sensitive to unemployment? Losing wages is of course a massive blow. But there are other ways in which work protects mental health. Being unemployed robs us of a time structure, a reason to get out of bed and do things every day. There are fewer opportunities to meet other people: for many, a job is as much about social relationships as it is about money. Having a job is also an important source of self-respect.

In the longer term, unemployment, poverty and psychological distress can become a vicious circle. Being unemployed and poor contributes to a decline in health, while poor health hinders individuals' attempts to escape unemployment and poverty. Unemployment often happens in repeated spells: once one job is lost, the next is often less secure. People who successfully find work between jobless spells seem to be less badly affected by a return to unemployment. Repeated unsuccessful attempts to get back into work, however, lead to increased distress.

Our research has also identified particularly stressful job characteristics for those in employment. Among these, low control over one's own tasks, or low rewards relative to the effort invested, evoke recurrent stress, with adverse consequences for one's health and working ability. In a comparison of different European regions, higher levels of work stress were associated with higher levels of depression. Moreover, the association appeared to be greater in countries like the UK, where labour policies leave individuals to cope with adverse work conditions, and where social protection regulations are relatively weak. There is also strong evidence that high levels of work stress are related not only to poor health, but also in the longer term to early retirement.

The 2008 recession has put unemployment back on the research and policy agenda, but we should not forget that a neglected consequence of recessions is a rise in work stress for those still in employment.

POLICY IMPLICATIONS

- Work stress is exacerbated by job insecurity, low control and high workloads, all of which affect health and working ability. Managing stress at work could have beneficial medium- and long-term effects on the ability to work of an ageing workforce.
- An unintended consequence of a flexible labour market is that more adults will experience spells of unemployment, and hence psychological ill health, during their working lives. Re-employment in secure positions is the best way to reduce the psychological distress associated with unemployment.
- Interventions that aim to get people into work commonly focus on the supply side, assuming that if individuals are given help with job searches and CV preparation, they will be more likely to find a position. When the economy is less buoyant, a greater focus must be placed on demand-side interventions to stimulate and facilitate the creation of secure jobs.

KEY SOURCES

Bambra C. Work, Worklessness, and the Political Economy of Health. Oxford: Oxford University Press, 2011.

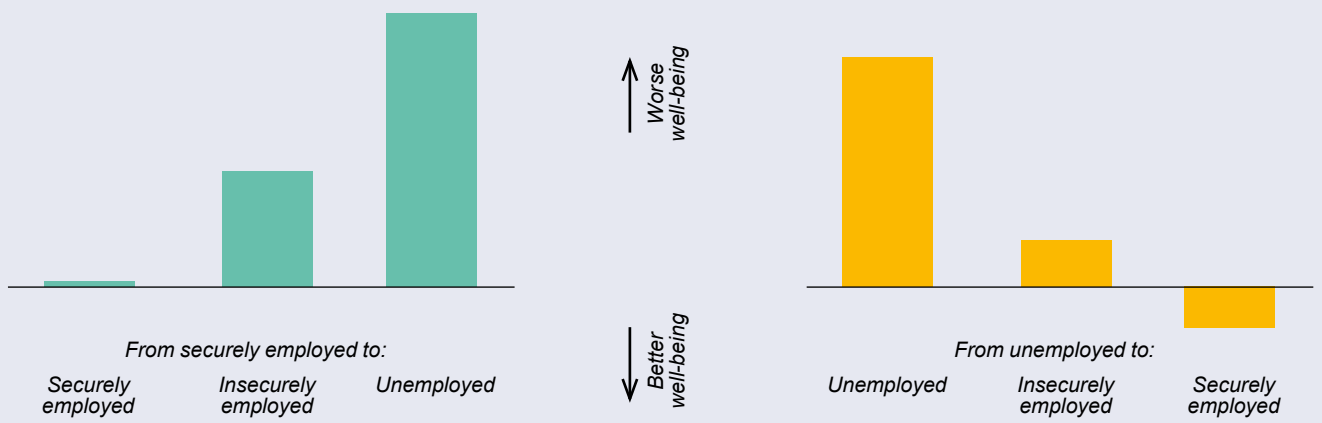
Bartley M. 'Job insecurity and its effect on health.' Journal of Epidemiology and Community Health 2005; 59(9): 718–19.

Chandola T. Stress at Work. London: British Academy, 2010. Available at: http://www.britac.ac.uk/policy/Stress-at-Work.cfm.

Siegrist J. & Marmot M., eds. Social Inequalities in Health: New Evidence and Policy Implications. Oxford: Oxford University Press, 2006.

Siegrist J. & Wahrendorf M. 'Quality of work, health, and retirement.' Lancet 2009; 374(9705): 1872–3.

Effect on psychological well-being of moving between secure employment, insecure employment and unemployment: British Household Panel Survey



5. Social relationships and psychological well-being

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WE HAVE KNOWN for a long time that people who have supportive friends and family, and who take part in churches, clubs and voluntary organisations, have better health. But we don't know what comes first: whether better health and more energy enable people to invest in relationships with family and friends, or whether having more such relationships leads to increased well-being. It is only in a lifecourse perspective that we can see whether social relationships really do seem to contribute to better health, by looking to see whether a person whose mental health is getting worse might tend to withdraw from their friends and family.

Relationships with friends, family and neighbours are a source of psychological well-being.

Attachment theory in psychology tells us that people whose childhood experiences make them 'securely attached' may just be better at relationships of any kind. They might find it easier to make friends at school and work, and to get on well with neighbours. Only information over a person's lifecourse can really throw any light on this. We need to be able to see whether people who have many friends already had better psychological health earlier in their lives.

Our research looked at members of a large long-term study who had large networks of friends and family to see if they were in better psychological health at the age of 50 than those who did not, regardless of their previous health. Adults who had no friends were the worst off in psychological terms. The importance of these relationships was not affected by education, employment or marital (or cohabiting) status.

It was interesting that for women, having

regular contact with a large family network did not necessarily lead to a higher level of well-being. It was women's friendship networks that were more important. Men did better when they had a large number of friends or family members.

Unlike having a large social network, on the other hand, volunteering was not so effective in protecting the psychological health of working-age people. It certainly did not make up for the loss of work relationships for people with no jobs. For older people who had retired, volunteering was positive for their well-being.

Friendship seems to be important in many nations. A study in France asked people about their relationships with others in their neighbourhood. It showed that having no social exchange with neighbours had a large negative impact on men's and women's quality of life. In this study, even if people became physically isolated from their friends for some reason, their psychological well-being could be sustained if they were able to establish relationships with their neighbours.

POLICY IMPLICATIONS

Our report shows a positive association between social interaction through social participation or networks and psychological well-being. This is in line with the policy recommendation in the final report of the Mental Capital and Wellbeing project from the Department for Business Innovation and Skills. We make the following recommendations:

- Provide financial support to volunteering and social enterprise groups to assure a mode of social participation for older adults.
- Assure time (i.e. work-life balance) and resources (e.g. public meeting places and green spaces) for all.
- Encourage neighbourliness and the development of neighbourhood projects.
- Endorse studies examining the economic benefit of proximal social ties in association with psychological well-being.

KEY SOURCES

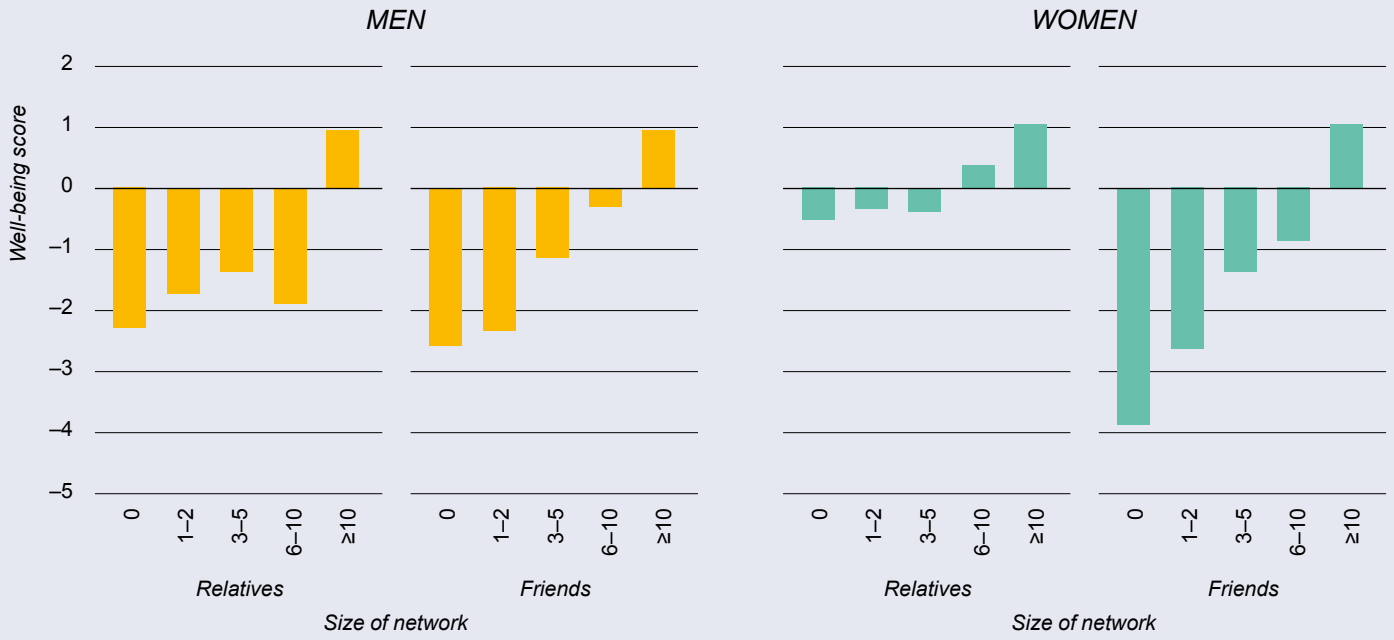
Bartley M., ed. Capability and Resilience: Beating the Odds. London: UCL Department of Epidemiology and Public Health, 2007. Available at: http://www.ucl.ac.uk/capabilityandresilience.

Cable, N., Bartley, M., Chandola, T., & Sacker, A. Friends are equally important to men and women, but family matters more to men's well-being. Journal of Epidemiology and Community Health 2012. doi: 10.1136/jech-2012-201113.

Foresight Mental Capital and Wellbeing Project. Final Project Report. London: The Government Office for Science, 2008. Available at: http://www.bis.gov.uk/foresight.

Platts L.G. Employment Characteristics and Subsequent Quality of Life. PhD thesis.

Size of social networks and psychological well-being in men and women



6. Up the hill, but not over it: Ageing in the 21st Century

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IN BRITAIN the average person now lives for a full ten years longer than in 1950. This is undoubtedly a good thing, but we still often discuss it in negative terms. We talk about the years we have gained as if they are tacked on to the end of life, likely to be spent in ill health and dependency on children or the state. However, the last 60 years have led to us not only living longer, but staying healthy for longer.

For most of the 20th century, the typical path of life led straight from retirement into 'old age', meaning progressively increasing frailty and dependence. However, increasing healthy life expectancy, growing national wealth, and improving pensions have driven a wedge between retirement and 'old age'. We have created a brand new phase of life, a third age, when substantial numbers of older people have the time and vigour to pursue active and fulfilling lives. The graph below nicely illustrates this changed course of life. It shows that, on average, people report their quality of life as improving from the age of 50, and not peaking until their late 60s.

A more positive older age may now be a reality for many people, but this promise is not fulfilled for everyone. Perhaps the biggest impediment to a fulfilling third age is poor health. Specifically, research has shown that what matters most are not specific diseases, but whether your illness limits what you can do. This has profound implications for health services, which overwhelmingly focus on isolating and tracking specific diagnoses.

"It is not enough for a great nation merely to have added new years to life – our objective must also be to add new life to those years." *John F. Kennedy, 1963*

Alongside health, the second main component of a good third age is remaining socially active. This can be difficult after one has lost the social networks provided by work and children. Social participation and supportive personal relationships provide a direct boost to quality of life, and also foster resilience in the face of adversity. Research has shown that older people facing bereavement or ill health particularly value the continuity provided by social relationships. Being socially integrated means not being defined only as, for example, a widow or a stroke victim, but having a continuing identity outside that label, like 'my friend Alice whose husband passed away' or 'our amma at the temple, Jyoti, who has a heart condition'. Further research has shown that supportive social relationships can also literally get under the skin to have a direct effect on health. Older people with lower levels of support have both significantly higher blood pressure and higher levels of inflammation (a commonly used biological indicator of underlying illness).

Good health and good relationships with family and friends, the two pillars of a good third age, are both more common among those who are better off financially. Research has shown that people who have built up less wealth throughout their lives tend to develop limiting illnesses earlier. In a very real sense, poorer people age more quickly. Retiring with fewer financial resources (for example, with just a state pension) can also make it difficult to stay socially active. If policymakers want more people to fulfil the promise held out by the third age, social policy needs to address these issues head-on.

POLICY IMPLICATIONS

Policy which seeks to capitalise on the promise of the third age should:

- Give greater priority to the ways in which illness might limit people's activities, for example through falls or urinary incontinence, to match the priority placed on tracking specific symptoms like high blood pressure.
- Seek to reduce the extent to which such factors limit people's ability to remain active and engaged in society.
- Take into account the social gradient in the onset of ill health, which means that those who are reliant on a state pension are likely to have a shorter period of good health after retirement.
- Seek to promote continued social engagement among older people by reducing the influence of financial resources. An example from an existing policy would be free public transport for older people, which removes financial considerations from social interactions away from the home.

KEY SOURCES

Hatton-Yeo A. Ageing and Social Policy: a Report for Volunteering in the Third Age. Beth Johnson Foundation, 2006. Available at: http://bit.ly/JKYpYb.

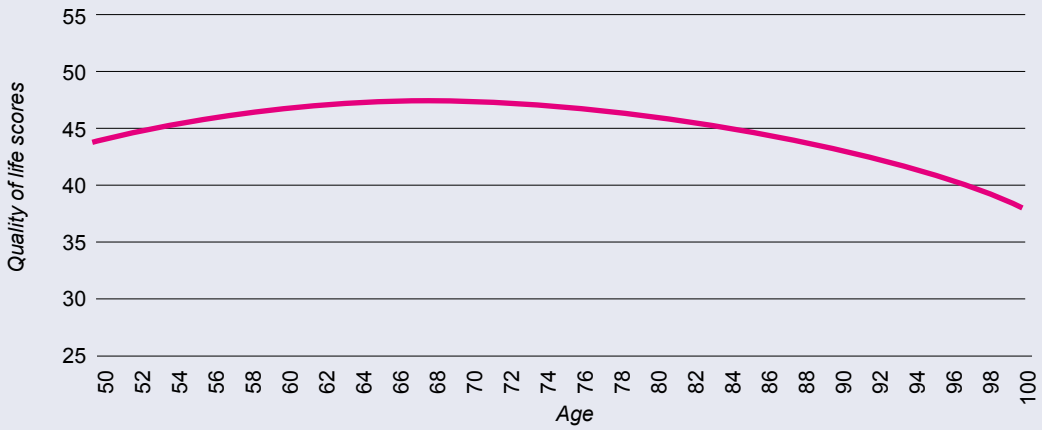
Higgs P., Hyde M., Wiggins R. & Blane D. 'Researching quality of life in early old age: the importance of the sociological dimension. Social Policy and Administration 2003; 37(3): 239–52.

Laslett P. A Fresh Map of Life: the Emergence of the Third Age. Basingstoke: Macmillan, 1996.

Netuveli G & Blane D. 'Quality of life in older ages.' British Medical Bulletin 2008; 85: 113–26.

Quality of life increases between the ages of 50 and 70

In the third age, quality of life can continue to increase into the late 60s and remain high till the early 80s, before starting the decline that signals the start of the fourth age.



7. Life getting under the skin: Childhood stress and adult health

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IT IS GENERALLY BELIEVED that stress can increase the risk of some diseases, particularly heart disease. However, the relationship between stress and health is hard to study, because some people may be more sensitive to stressful experiences and react more strongly than others would to the same experiences – for example, a divorce, or losing one's job. Cortisol is a hormone which is produced when someone is stressed. It can be difficult to measure in large numbers of people, but it is useful because it tells us about a person's response to stress. Some patterns of higher cortisol levels indicate that a person has had more unpleasant experiences, but this is also influenced by their sensitivity to stress.

Stress in childhood can result in an accumulation of health risks over the lifecourse.

Studying the lifecourse is necessary if we are to understand the relationship between stress and health, because childhood is thought to be a crucial period of development for the stress response. Experiences in childhood may be related to permanent changes in how stress hormones are regulated by the body: early stress makes the child more susceptible to future stress, and this is reflected in patterns of higher cortisol levels.

We have measured cortisol levels in thousands of adults at the age of around 60 to find evidence of long-term effects of psychological stress in childhood. One way in which childhood stress was measured was that people were asked if they had been separated for more than one year from

their mothers. The people who had experienced this much separation were found to have higher cortisol levels. This tells us that childhood separation appears to result in an increased risk of a less healthy stress response many years later in adulthood.

So if childhood stress makes people more sensitive to stress in adulthood, how does this translate into an increased risk of disease and early death? Greater exposure to cortisol and its effects may cause damage to the part of the brain concerned with memory, and to other parts of the body. It also weakens the body's ability to fight infections. But this is not the only explanation. As we have seen in some of our other research, people who suffer stresses such as parental divorce in childhood are at a higher risk of social and psychological problems later in their adult lives. It is harder to concentrate in school, for example, so young people with stressful homes are less likely to get good qualifications and jobs. Emotional development may be adversely affected, leading to problems making adult relationships. Thus people who are more susceptible to stress also tend to accumulate less favourable experiences over a long period. This combination of stress-related risks may also lead people to develop more health-damaging behaviours, such as smoking, to help them cope.

The association of stress with poor health was confirmed when we looked at deaths five years after the cortisol levels were measured. Patterns of cortisol that indicated higher levels of stress predicted increased death rates, particularly due to heart disease.

KEY SOURCES

Adam E.K. & Kumari M. 'Assessing salivary cortisol in large-scale, epidemiological research.' Psychoneuroendocrinology 2009; 34: 1423–36.

Kumari M., Head J., Bartley M., Stansfeld S. & Kivimaki M. 'Maternal separation in childhood and diurnal cortisol patterns in mid-life: findings from the Whitehall II study.' Psychological Medicine 2012 (in press).

Kumari M., Shipley M., Stafford M. & Kivimaki M. 'Association of diurnal patterns in salivary cortisol with all-cause and cardiovascular mortality: findings from the Whitehall II study.' Journal of Clinical Endocrinology and Metabolism 2011; 96: 1478–85.

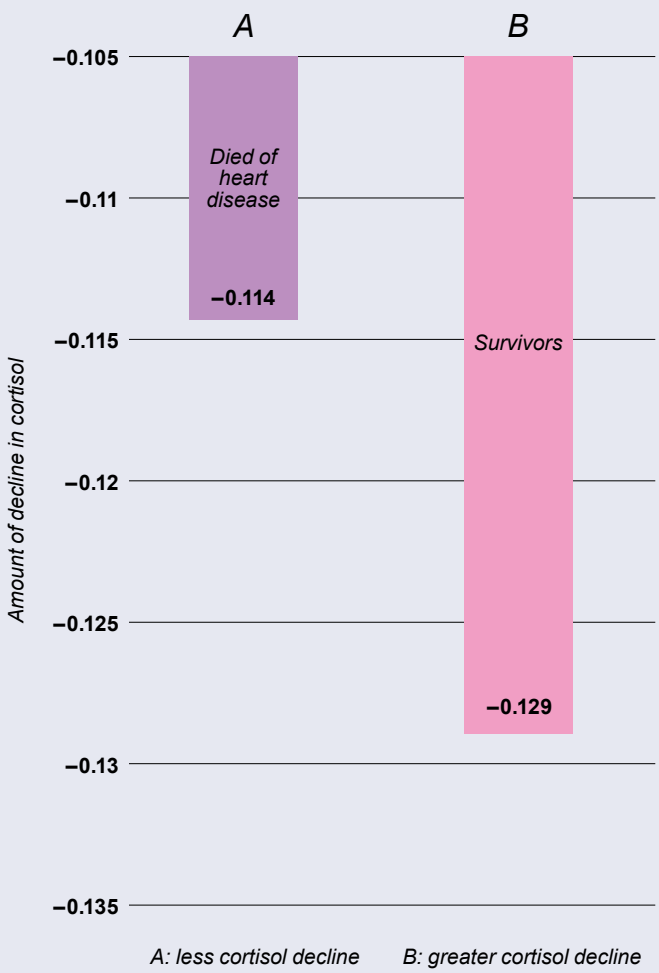
Levine S. 'Developmental determinants of sensitivity and resistance to stress.' Psychoneuroendocrinology 2005; 30: 939–46.

Taylor S.E., Lerner J.S., Sage R.M., Lehman B.J. & Seeman T.E. 'Early environment, emotions, responses to stress, and health.' Journal of Personality 2004; 72: 1365–93.

POLICY IMPLICATIONS

People who experienced stress in childhood can be more susceptible to stress as adults. They may require more support to face adult adversity.

Daily cortisol decline in people who subsequently died of heart disease compared to survivors



Conclusion

IN THIS BOOKLET we have tried to give a flavour of what lifecourse research is discovering about health and well-being. For some time now, doctors, psychologists and economists have realised that health is not all about biology, and happiness is not all about money.

There is an interplay between what is around us in our everyday lives and what we bring with us from earlier in life. Children learn more at school when their family environment has prepared them to be 'school-ready'. Many young adults experiment with risk-taking for a while and then move on easily, while others find it harder. We all know some people who are able to 'make the best' of situations, even difficult ones, at home or at work, while others fail to cope. And most of us will know other people who have obvious talents which somehow they just never manage to make much of, who 'snatch defeat from the jaws of victory'.

… we are just beginning to understand why individuals are the way they are.

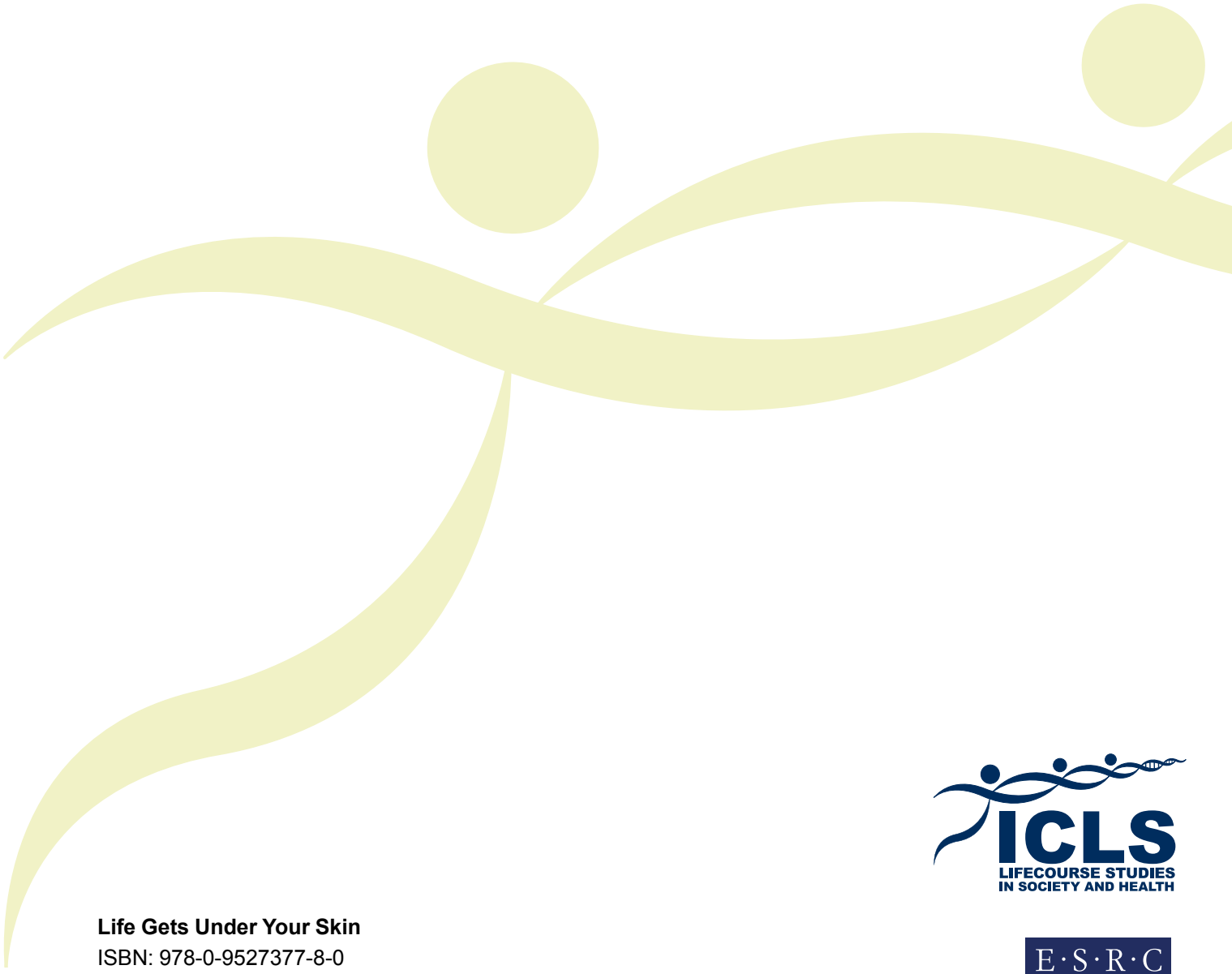
By looking across the whole of the lifecourse at how biological, economic and psychological factors influence each other, we are just beginning to understand why individuals are the way they are.

Of course everyone is fascinated to understand themselves and those close to them. We watch TV soap operas in order to see all these individual life stories in a less threatening way, because they are not 'real', although they may remind us strongly of our own lives. But the understanding that lifecourse research can achieve has other significance as well.

Many of the diseases of ageing have their roots much earlier in life, and are more likely to be prevented by starting early. How much friendlier would our neighbourhoods be if everyone brought with them from childhood the general idea that other people are to be respected and valued? How much more productive would our national economy be if everyone made full use of their talents and abilities?

We hope that we have given some flavour of the promise held out by lifecourse research and how it could be applied to the real world.

FEEDBACK **The findings we present here are only steps in what will no doubt be a long process of discussion and debate. We encourage anyone reading this booklet to send us feedback, visit our website, and attend our policy seminars and public events. You will find our contact details on the back cover.**



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