

# The Life Course Approach to Health and Wellbeing

## Introduction

Health and wellbeing develop progressively across time rather than as the result of isolated events. The life course approach provides a theoretical framework for understanding how biological, psychological and social factors interact across different stages of life to shape long-term health trajectories (Ben-Shlomo and Kuh, 2002). Rather than viewing health as static, this perspective conceptualises it as dynamic and cumulative, influenced by exposures during critical and sensitive periods, transitions between social roles, and the accumulation of risks and protective factors.

This approach challenges reductionist explanations that focus solely on adult lifestyle choices. Instead, it recognises that adult health outcomes are closely linked to earlier life experiences and broader structural conditions (Kuh et al., 2003). By examining how health is shaped from preconception through older age, the life course framework provides a foundation for prevention-focused and equity-driven public health policy.

## Core Concepts of the Life Course Approach

The life course framework is underpinned by several key theoretical concepts: critical periods, sensitive periods, accumulation of risk, and chains of risk (Ben-Shlomo and Kuh, 2002).

A critical period refers to a specific window of development during which exposure to a biological or environmental factor has irreversible effects on future health. For example, inadequate nutrition during fetal development may permanently alter metabolic systems, increasing susceptibility to cardiovascular disease in adulthood (Barker, 1995). In contrast, a sensitive period describes a stage when exposures have stronger effects than at other times, but later interventions may partially mitigate damage.

The concept of accumulation of risk suggests that repeated exposure to disadvantage—such as poverty, poor housing, or limited education—compounds over time, progressively increasing vulnerability to ill health. Related to this is the notion of chains of risk, where one adverse experience increases the likelihood of subsequent risks, creating a linked trajectory of disadvantage.

Together, these concepts emphasise that health is shaped through long-term pathways rather than isolated incidents. However, the framework also recognises that trajectories remain modifiable. Turning points and protective factors can redirect adverse pathways, demonstrating that the life course is neither fixed nor deterministic.

## Early Life: Biological Embedding and Developmental Origins

The prenatal and early childhood periods are widely recognised as foundational stages in the life course. The Developmental Origins of Health and Disease (DOHaD) hypothesis proposes that early biological adaptations to environmental conditions can have lasting consequences for adult health (Barker, 1995). Maternal nutrition, stress, exposure to toxins, and access to antenatal care influence fetal growth and organ development. These early biological processes may “programme” susceptibility to chronic conditions such as hypertension and diabetes later in life.

Beyond biological embedding, early psychosocial environments also shape developmental trajectories. Supportive caregiving relationships contribute to secure attachment, emotional regulation, and resilience (Shonkoff and Phillips, 2000). Conversely, adverse childhood experiences (ACEs), including abuse, neglect, or household dysfunction, are associated with increased risks of mental illness, substance misuse, and chronic disease in adulthood (Felitti et al., 1998).

The accumulation of adversity during early life illustrates how social disadvantage becomes biologically embedded. However, it is important to avoid deterministic interpretations. While early exposure to risk increases vulnerability, evidence indicates that later supportive interventions—such as quality education and social support—can alter trajectories and improve outcomes (Victora et al., 2008). Thus, early life is highly influential but not wholly predictive.

## Adolescence: Sensitive Period and Behavioural Patterning

Adolescence represents a sensitive developmental period characterised by rapid biological, psychological and social change. Identity formation, peer influence and increasing autonomy shape behavioural choices that may persist across the lifespan (Kuh et al., 2003). Health-related behaviours established during adolescence—including dietary habits, physical activity levels, smoking and alcohol consumption—often track into adulthood, contributing to long-term health outcomes.

Mental health vulnerabilities frequently emerge during adolescence, with many lifelong psychiatric conditions first presenting during this stage (Patel et al., 2007). Social determinants such as educational opportunity, neighbourhood safety, and family stability influence both mental and physical health trajectories.

However, adolescence also represents a potential turning point. Interventions such as school-based health promotion programmes, mental health services, and policies reducing exposure to harmful substances can redirect negative trajectories. The life course approach therefore highlights adolescence not only as a period of vulnerability but also as an opportunity for prevention.

## Adulthood: Role Transitions and Accumulated Exposure

Adulthood introduces significant social transitions, including entering the workforce, forming long-term partnerships, and parenthood. These transitions can act as turning points influencing health

trajectories. Employment may provide financial stability, social networks and purpose, all of which promote wellbeing. Conversely, job insecurity, hazardous working conditions, and emotional labour—particularly in caring professions—can increase stress and risk of burnout.

The accumulation of occupational exposures over time illustrates how adult experiences contribute to chronic illness. Sedentary work, prolonged stress, and limited access to healthcare may compound earlier disadvantages. Importantly, lifestyle behaviours in adulthood are not purely individual choices but are shaped by socioeconomic position and environmental context (World Health Organization, 2010).

The life course perspective therefore challenges narratives that attribute adult disease solely to personal responsibility. Instead, it situates behaviours within broader structural constraints, including income inequality, housing quality, and healthcare access.

## Later Life: Ageing, Retirement and Social Connection

Later life is associated with physiological ageing, increased risk of chronic disease, and transitions such as retirement and bereavement. While biological ageing is inevitable, the health trajectory entering older age is strongly shaped by earlier exposures and accumulated advantage or disadvantage.

Retirement may reduce stress for some individuals but increase financial insecurity and social isolation for others. Loneliness has been linked to poorer mental health, cognitive decline, and increased mortality risk. Maintaining social networks and community engagement therefore becomes central to wellbeing in later life.

Importantly, the life course framework recognises ageing as heterogeneous. Not all individuals experience decline in the same way. Access to healthcare, lifelong education, socioeconomic resources, and supportive environments influence the quality of ageing. This reinforces the cumulative nature of health inequality across the lifespan (Marmot, 2005).

## Social Determinants and Structural Inequality

A defining strength of the life course approach is its integration of social determinants of health. Health outcomes are shaped not only by biology and behaviour but also by income, education, housing, employment conditions and healthcare systems (World Health Organization, 2010).

The social gradient in health demonstrates that individuals in lower socioeconomic positions experience higher morbidity and mortality rates across the lifespan (Marmot, 2005). These inequalities reflect structural conditions rather than individual failings. Early educational disadvantage may limit employment opportunities, which in turn restrict access to healthy environments and healthcare, illustrating a chain of risk across life stages.

Critically, while the life course approach provides a comprehensive framework, its effectiveness depends on policy implementation. Without structural interventions addressing inequality, recognition of cumulative disadvantage alone does not produce change.

## Policy and Prevention Implications

Viewing health through a life course lens shifts emphasis from treatment to prevention. Early childhood interventions, such as high-quality preschool programmes and maternal health services, demonstrate long-term benefits for health and socioeconomic outcomes (Victora et al., 2008). Universal policies, including access to education and healthcare, can reduce inequalities at population level.

Interventions should not be confined to early life. Policies supporting healthy workplaces, mental health services during adolescence, and social engagement programmes for older adults are equally important. A whole-life approach ensures continuity of support across transitions.

However, there is debate regarding resource allocation. Some argue that prioritising early life yields the greatest long-term return on investment. Others contend that neglecting later-life interventions risks reinforcing inequality among older populations. A balanced approach recognising both early foundations and lifelong plasticity is therefore essential.

## Critical Evaluation of the Life Course Approach

The life course model offers several strengths. It integrates biological and social perspectives, acknowledges temporal processes, and provides a strong rationale for preventative policy. It also highlights the cumulative and intergenerational transmission of health inequalities.

Nevertheless, limitations exist. Establishing causal pathways across decades can be methodologically challenging. Longitudinal studies are resource-intensive and may be affected by attrition bias. Additionally, while the framework recognises structural determinants, translating theory into policy requires political commitment and sustained investment.

Despite these challenges, the life course approach remains one of the most comprehensive frameworks for understanding population health.

## Conclusion

The life course approach demonstrates that health and wellbeing are shaped through dynamic and cumulative interactions between biological embedding, behavioural development, and structural conditions. From critical prenatal periods to later-life transitions such as retirement, each stage contributes to evolving health trajectories.

By emphasising accumulation of risk, sensitive periods, and social determinants, this perspective challenges narrow behavioural explanations of disease. While early life experiences provide a foundation, trajectories remain modifiable through timely interventions and supportive environments.

Ultimately, improving population health requires sustained investment across all stages of life, alongside structural policies aimed at reducing inequality. Applying a life course lens enables more preventative, equitable and effective strategies to promote health and wellbeing across the lifespan.

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